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## **Flora of Ashiu, Japan**

Sachiko YASUDA and Hidetoshi NAGAMASU

**ABSTRACT** Kyoto University Forest in Ashiu, Miyama-cho, Kyoto Prefecture, is known for its well-preserved forest and its unique biogeographical location affected by the climate of the Japan-Sea side. The new flora of Ashiu presented here consists of 801 species, 7 subspecies, 31 varieties, 12 forms, and 3 hybrids in 126 families and includes scientific names, Japanese names, references to citations in the previous inventories, distributions, and exsiccatae information of the collections taken in Ashiu. According to this floristic study, the phytogeography of Ashiu is characterized by, a) the so-called 'Japan-Sea side type', i.e., the species having their distributions inclined to the Japan-Sea side regions, b) plants with intermediate forms between the 'Japan-Sea side type' and the 'Pacific side type', and c) disjunctly distributed species in Ashiu.

**KEY WORDS** Flora/ Kyoto/ Japan/ phytogeography

### **Introduction**

Despite its relative country size, compared with other north temperate regions, Japan has a remarkably diverse flora, about 4000 angiosperm species (Hotta, 1974). This is due in part to the islands location, narrow shape, proximity off the Asia Continent, warm and rainy subboreal to subtropical climate, and geographical diversity extending from coast to alpine.

Many environments in Japan have been changed drastically by industrialization, damming of streams and rivers, and growth in transportations, beginning in the 'high-degree economic growth' period. According to the Red Data Book by the Japan Society of Plant Taxonomists (1993), there are 25 species already extinct, 135 species nearly extinct, 604 species endangered, and 30 species lacking information of their existence. There have been many environments and vegetations destroyed without any consideration of their importance because of the lack of the precise information about their nature.

Floristic studies have two important purposes; first, to classify and report all the species growing in the study area which provides information fundamental for additional natural scientific studies. Secondly, to summarize the floristic characters of the area which considers aspects of the environment, e.g., geography and climate.

Kyoto University Forest in Ashiu is located in the north-eastern part of Kyoto Prefecture, bounded by Fukui Prefecture and Shiga Prefecture. It extends over 4000 ha around the highest streams of the Yura River on the eastern edge of the Tanba Plateau, of which about 1800 ha is preserved intact. There are no other well-preserved forest as large as Ashiu below 1000 m in the temperate deciduous forests of western Honshu (Ministry of Ecology, 1983).

Ashiu has been an important area for botanical researchers because of its floristic richness (Nakai, 1941; Takeuchi, 1962), and its unique biogeographical location between the Japan-

Sea side region and the Pacific side region (Araki, 1942). Takeuchi (1962) recognizes Ashiu as the “most abundant storage of plant species in Kyoto Prefecture”.

However, despite its importance, the flora of Ashiu has not been well studied. Floral inventories of Ashiu have been published by various botanists. Okamoto (1930) treated only the woody plants, with both scientific names and Japanese names. Watanabe (1973) and Nakane (1986) both listed all the vascular plants, but with only Japanese names. An unpublished flora by Yamanaka (1991) was prepared for students taking practical courses at Kyoto University, but treats only the woody plants with both scientific and Japanese names. Only Okamoto's (1941) treatment contains both of woody and herbaceous plants of the area with scientific names. In addition, none of these inventories lists voucher specimens collected in Ashiu. Without this information, reidentification of specimens to confirm the existence of species and/or the elimination of species is hindered. A new floristic study with scientific names and the information about the specimens has been longed for by not only botanists but also many natural scientists who are interested in Ashiu.

Floristic investigations were undertaken to identify and annotate the specimens in the

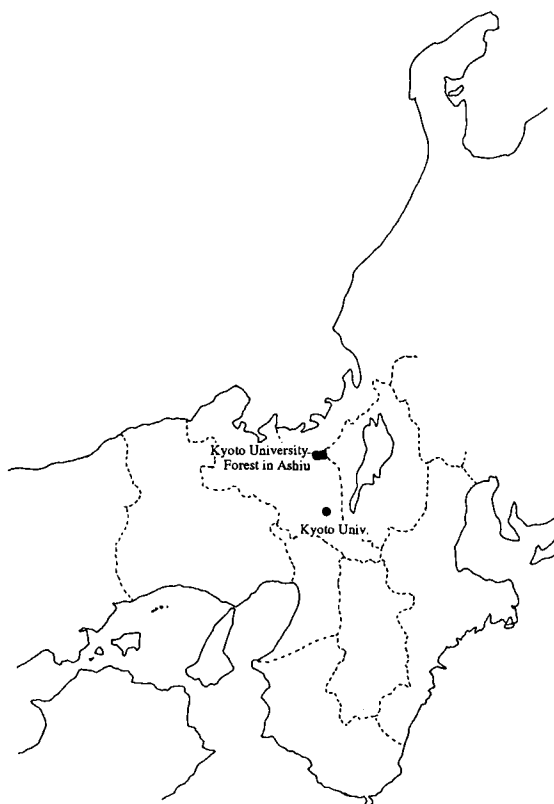


Fig. 1. Location of Kyoto Universty Forest in Ashiu.

herbaria which likely store most of the collections from Ashiu, and to collect specimens in the area by conducting field work. These investigations resulted in a new flora of Ashiu, which contains the scientific and Japanese names, the distribution of each species, and the exsiccatae information of the collections taken in Ashiu. Some floristic features of Ashiu based on this new flora are summarized, which will be helpful for understanding the botanical and environmental importance of the region.

### Study Area

**Location and Sphere.** Kyoto University Forest in Ashiu ( $35^{\circ} 19' N$ ,  $135^{\circ} 45' E$ ) is located about 30 km north of Kyoto City and about 15 km south of Obama City (Fig. 1). The total area of Ashiu is about 4000 ha, nearly half of which, about 1800 ha, is preserved intact.

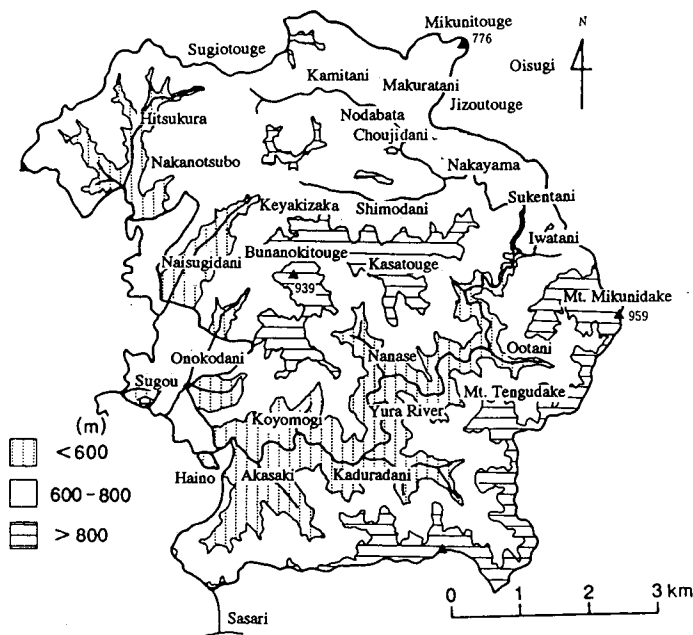


Fig. 2. Map of study area with brief contour lines.

The study area (Fig. 2) contains the whole University Forest, the area around Sugou, and the route from Sasari to Haino, because many specimens reported as collected in Ashiu were likely from these areas.

**Topography.** Brief contour lines of Ashiu are drawn in Fig. 2. The elevation of Ashiu extends from 355 m at Sugou to 959 m on the top of Mt. Mikunidake. The two-thirds area is from 600 to 800 m above the sea. Most of the high mountains lie in the central or south-eastern region, and the main stream flows clockwise from north to south between these regions. Besides the main stream, there are many smaller streams in Ashiu, which form steep valleys and make its geographical features undulated.

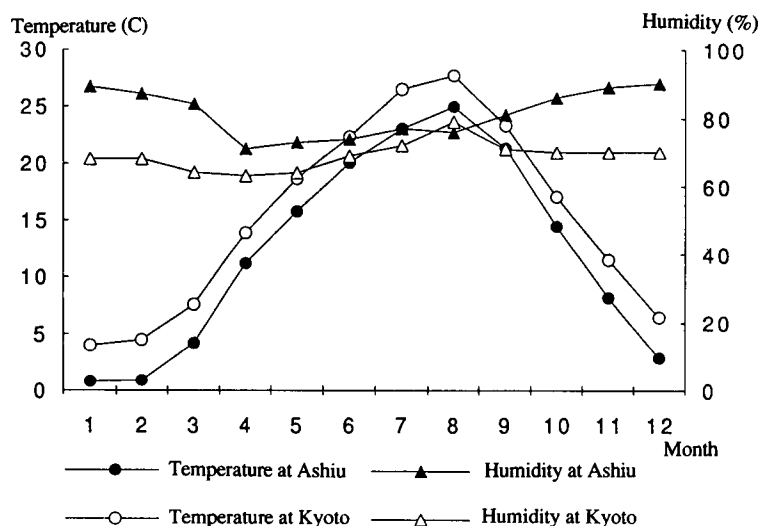


Fig. 3. Mean annual temperature and mean humidity of the Ashiu Observatory (Kyoto University Forests, 1993) and Kyoto City (The National Astronomical Observatory, 1993) from 1986 to 1990.

**Geology.** Ashiu belongs to the Tanba Belt. The lowest layer consists of siliceous shale, covered with Mesozoic chart, over which a layer of the end of the Jula era lies (Imoto, 1984). The agronomical survey by Shidei *et al.* (1958) summarises that most soil in Ashiu is Forest Brown Soil, but that there is Podzolic Soil around the ridges in the higher elevations.

**Climate.** The climate in Ashiu is of the Japan-Sea side region, which is characterized by large snow accumulations in the winter. The mean annual temperature is 12.3 C, the mean relative humidity is 81.4%, and the mean annual precipitation is 2375.3 mm, according to data of the Ashiu Observatory at Sugou from 1986 to 1990 (Kyoto University Forests, 1993). Throughout the year it is relatively cooler and more humid than in Kyoto City (The National Astronomical Observatory, 1993) (Fig. 3). According to Ando (1989), the climate inside Ashiu varies, at the Choujidani Obsevatory, which is located in the north-eastern part of Ashiu, the mean temperature is around 2 C cooler and the mean annual precipitation is around 400 mm more than those at the Ashiu Observatory.

**Vegetation.** Vegetation in Ashiu was studied by the Study Group of Natural Forest Ecology (1972) which recognized Ashiu as a transitional region between temperate deciduous forests and warm deciduous forests. According to this group, temperate deciduous forests are dominant above 600 m in elevation with *Aesculus turbinata* and *Pterocarya rhoifolia* in valleys, and with *Fagus japonica* and *Quercus crispula* on steep slopes. *Cryptomeria japonica* var. *radicans*, *Clethra barbinervis* and *Ilex pedunculosa* are often seen around the ridges or on the upper sides of steep slopes above 700 m. Warm temperate forests are dominant under 600 m with *Q. salicina* and *Q. sessilifolia*.

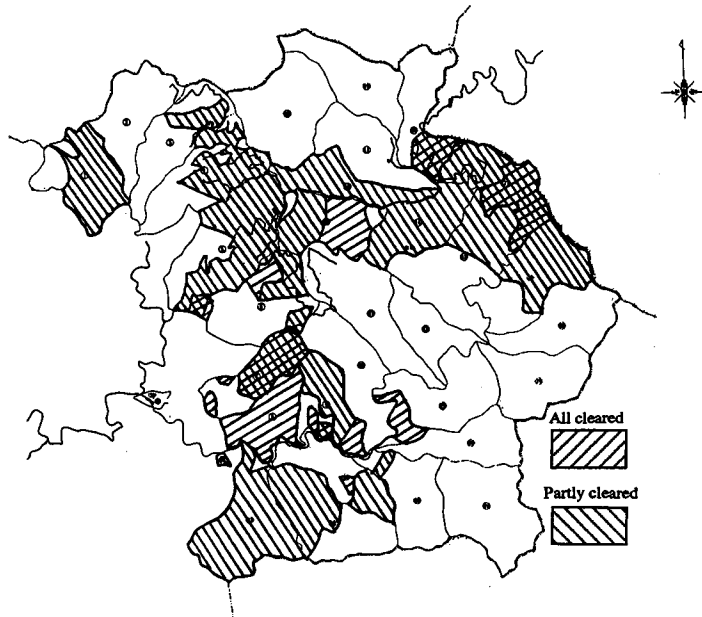


Fig. 4. Distribution map of deforestation in Ashiu from 1921 to 1987. Reproduced from Katori (1992).

Fig. 4 is a distribution map of the deforestation in Ashiu from 1921, when Kyoto University began to manage the forest, to 1987 according to the data by Katori (1992). Most of the intact forests appear to be left in the northern, western and south-eastern parts of Ashiu. But the forest around Kamitani, in the northern part, had been burnt several times for hay production before the management of Kyoto University (Nakajima *et al.*, 1993). The northern side of Kamitani valley is still covered with a secondary forest.

## Methods

Herbarium investigation studied specimens stored in the herbaria of Faculty of Science, Kyoto University (KYO) and the University Forest in Ashiu, Faculty of Agriculture, Kyoto University. In addition, specimen collections were made during approximately 60 field surveys from April 1992 to November 1993. Field surveys were centered around Kamitani, Makuratani, Kaduradani, Hitsukura, Mikunitouge, and Sugou, although some eastern parts like Mt. Mikunidake and Mt. Tengudake were not studied. The voucher collection is stored at KYO.

The descriptions of each taxon are arranged as follows: 1) scientific name; 2) Japanese name; 3) references to the citations in the previous inventories with the page number and the corresponding name if it is changed; 4) distribution; 5) note; 6) the locations and collector names of the specimens from Ashiu. The scientific names and Japanese names follow mostly Satake *et al.* (1981, 1982a, 1982b, 1989a, 1989b), partly Kitamura *et al.* (1958, 1961, 1964, 1971, 1979), and Osada (1993) for Gramineae. The species newly found in Ashiu by this study are noted with 'New' in the references column. All the specimens

in the descriptions are of KYO expect for some belonging to the herbarium in University Forest in Ashiu, which are noted with '(Herb. Ashiu)'.

## Floristic Features of Ashiu

### The number of the seed plants in Ashiu

The flora of Ashiu contains 801 species, 7 subspecies, 12 forms, and 3 hybrids, consisting of 11 gymnosperm species in 6 families, 190 monocotyledonous species in 16 families, and 600 dicotyledonous species in 104 families. 691 species, 6 subspecies, 27 varieties, 9 forms, and 3 hybrids are confirmed their existence in Ashiu with their specimens, including 65 species, 13 varieties, and 2 forms newly reported. Some species reported in former inventories have remained in this flora even without their voucher specimens, because they are likely in Ashiu but no reason can be found to delete them. However, 51 species, 7 varieties, and 1 hybrid are removed from the flora because of their misidentifications, or their doubtfulness in Ashiu by considering their distributional patterns and lack of voucher specimens.

In this flora, only native or naturalized species are contained. Cultivated or introduced species are unsuitable for the purpose of this flora. Ashiu has more than 80 woody species introduced by Kyoto University (Ando *et al.*, 1991). Three species reported in the inventory by Watanabe (1973), *Prunus salicina*, *Physalis alkekengi* and *Edgeworthia chrysantha*, may have been introduced before the management by Kyoto University.

### General View

In lower areas like Sugou, warm temperate woody species like *Quercus crispula* and *Q. sessilifolia* can be seen, which do not appear in elevations higher than about 600 m. Under these species, there are some warm temperate shrubs and herbs, e.g., *Lindera sericea* var. *glabrata*, *Schizocodon soldanelloides* var. *magnus* and *Shortia uniflora*. In geologically gentle sloped valleys like Naisugidani, *Fagus japonica*, *Acer nipponicum*, and *Cladrastis shikokiana* can be seen with *Oxalis griffithii*, *Carex dolichostachya* var. *glaberrima*, *Polygonatum lasianthum* and *Galium trifloriforme*.

Along streams between 600 m and 700 m, there are trees, like *Aesculus turbinata*, *Pterocarya rhoifolia*, *Acer carpinifolium*, and *Cercidiphyllum japonicum*. Under these species, there can be seen some small trees or shrubs like *Viburnum dilatatum*, *V. furcatum*, *Euonymus alatus*, *Symplocos sawafutagi* and *Ligustrum obtusifolium*, and herbs, *Hosta sieboldiana*, *Saxifraga fortunei* var. *incislobata*, and *Wasabia japonica*. There also are many trees and herbs so-called 'Japan-Sea side type', like *Acer amoenum* var. *matsumurae*, *Cephalotaxus harringtonia* var. *nana*, *Euonymus lanceolatus*, *Cacalia nikomontana*, *C. peltifolia*, *Mitella acerina*, *Rabdosia shikokiana* var. *occidentalis*, and *R. longituba*. Besides these, there are some species which distribute mainly in the northern region of Japan, e.g., *Viola brevistipulata*, *Arnica mallatopus*, *Veratrum album* subsp. *oxysepalum*, and *Rodgersia podophylla*. On the cliffs along the streams, *Trochodendron aralioides* (a relict to Japan and Taiwan), *Epigaea asiatica* and *Shortia uniflora* can often be seen.

On steep slopes between 600 m and 800 m, there often grow *Fagus crenata*, *Quercus*

*crispula*, and *Betula grossa*, under which, some shrubs like *Lindera umbellata*, *Hydrangea hirta* and *H. serrata*, and herbs like *Trillium smallii*, *Calanthe reflexa*, and *Ainsliaea acerifolia* var. *subapoda* can be seen. On the ridges, some trees tolerable to arid ground like *Cryptomeria japonica* var. *radicans*, *Ilex pedunculosa*, and *Lyonia ovalifolia* var. *elliptica* are dominant, and under those, there are some warm temperate shrubs, *Ilex sugeroki* var. *sugeroki*, *I. crenata* and *Pieris japonica*.

In the swamps in Choujidani and Nodabata, there can be seen *Pogonia japonica*, *Platanthera hologlottis*, *Epipactis thunbergii*, *Eleocharis wichurae*, *Carex maximowiczii*, *Galium trifidum* var. *brevipedunculatum*, and *Sarothra laxa*.

### Phytogeographical Features of Ashiu

Most of the species seen in Ashiu are common to the natural forests in Western Honshu. But some of them are unique and provide Ashiu two characteristic phytogeographical features, which are, a) the so-called 'Japan-Sea side type', and b) species with their disjunct distributions.

**Japan-Sea Side Type.** The species with distributional patterns inclining toward the Japan-Sea side regions of Honshu and Hokkaido are called 'Japan-Sea side type' (Hotta, 1974). The Japan-Sea side type is defined only by similarities of their distributional patterns, the process of the development of their distribution may vary. In Ashiu, there are 1) 38 Japan-Sea side type species of three distributional patterns, and 2) five species with intermediate forms between the Japan-Sea side type and the Pacific side type, both of which produce a phytogeographical uniqueness of Ashiu.

Table 1. Japan-Sea side types in Ashiu which distribute all over the Japan-Sea side regions of Honshu, often of Hokkaido and/or Kyushu.

No.	Species	Family
1	<i>Torreya nucifera</i> var. <i>radicans</i>	Taxaceae
2	<i>Cephalotaxus harringtonia</i> var. <i>nana</i>	Cephalotaxaceae
3	<i>Cryptomeria japonica</i> var. <i>radicans</i>	Taxodiaceae
4	<i>Laportea macrostachya</i>	Urticaceae
5	<i>Magnolia salicifolia</i>	Magnoliaceae
6	<i>Chrysosplenium fauriei</i> var. <i>fauriei</i>	Saxifragaceae
7	<i>Hydrangea serrata</i> var. <i>megacarpa</i>	Saxifragaceae
8	<i>Daphniphyllum macropodum</i> var. <i>humile</i>	Daphniphyllaceae
9	<i>Ilex leucoclada</i>	Aquifoliaceae
10	<i>Viola vaginata</i>	Violaceae
11	<i>Berchemia longeracemosa</i>	Rhamnaceae
12	<i>Epigaea asiatica</i>	Ericaceae
13	<i>Rhododendron lagopus</i> var. <i>niphophilum</i>	Ericaceae
14	<i>Rabdosia trichocarpa</i>	Labiatae
15	<i>Sambucus racemosa</i> subsp. <i>sieboldiana</i> var. <i>major</i>	Caprifoliaceae
16	<i>Weigela hortensis</i>	Caprifoliaceae
17	<i>Cacalia nikomontana</i>	Compositae
18	<i>Arnica mallatopus</i>	Compositae
19	<i>Carex insanae</i> var. <i>insanae</i>	Cyperaceae
20	<i>Sasa kurilensis</i>	Gramineae



Table 2. Japan-Sea side types in Ashiu which distribute mainly south to Kinki.

No.	Species	Family
1	<i>Skimmia japonica</i> var. <i>intermedia</i> form. <i>repens</i>	Rutaceae
2	<i>Cardamine regeliana</i>	Cruciferae
3	<i>Vicia venosa</i> var. <i>cuspidata</i>	Vitaceae
4	<i>Acer amoenum</i> var. <i>matsumurae</i>	Aceraceae
5	<i>Viola brevistipulata</i>	Violaceae
6	<i>Schizocodon soldanelloides</i> var. <i>magnus</i>	Diapensiaceae
7	<i>Scutellaria muramatsui</i>	Labiatae
8	<i>Cirsium kagamontanum</i>	Compositae
9	<i>Carex morrowii</i> var. <i>temnolepsis</i>	Cyperaceae

Table 3. Japan-Sea side types in Ashiu which distribute mainly east to Hokuriku.

No.	Species	Family
1	<i>Epimedium sempervirens</i>	Berberidaceae
2	<i>Dichocarpum ohwianum</i>	Ranunculaceae
3	<i>Mitella acerina</i>	Saxifragaceae
4	<i>Euonymus lanceolatus</i>	Celastraceae
5	<i>Rabdosia shikokiana</i> var. <i>occidentalis</i>	Labiatae
6	<i>Veronica muratae</i>	Scrophulariaceae
7	<i>Cirsium longepedunculatum</i>	Compositae
8	<i>Cacalia peltifolia</i>	Compositae
9	<i>Arisaema amurense</i> subsp. <i>robustum</i> var. <i>ovale</i>	Araceae

1. *Japan-Sea Side Type in Ashiu.* Out of this inventory, 38 species, varieties, or forms are classified as the Japan-Sea side type, which can be subdivided into 3 groups by their distributional patterns as follows:

1. The species which distribute all over the Japan-Sea side regions of Honshu, and often of Hokkaido and/or Kyushu (see Fig. 5; Table 1).
2. The species which distribute mainly south to Kinki (see Fig. 6; Table 2).
3. The species which distribute mainly east to Hokuriku (almost the same as San'in region) (see Fig. 7; Table 3).

The members of the third group, excluding *Dichocarpum ohwianum* and *Arisaema amurense* subsp. *robustum* var. *ovale*, have their distributional patterns centering around Ashiu. Especially, *Mitella acerina*, which is restricted to the area around Ashiu (Fig. 8), but very common along the streams in Ashiu. These facts suggest Ashiu to be one of the important places for the establishment of their distributional patterns. Hotta (1981) infers that some of the Japan-Sea side type such as *Mitella acerina* and *Cacalia peltifolia* took refuge around Ashiu because there remained higher humid conditions even in the Urm Period, during which most parts of Japan were possibly covered with dry climate.

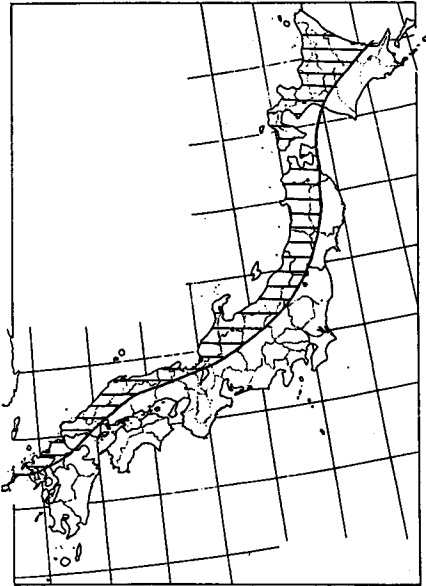


Fig. 5. Distribution pattern of Japan-Sea side type all over the Japan-Sea side regions of Honshu, often of Hokkaido and/or Kyushu.

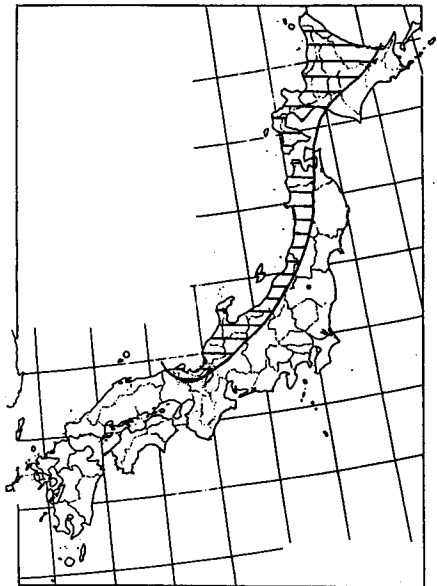


Fig. 6. Distribution pattern of Japan-Sea side type mainly south to Kinki.

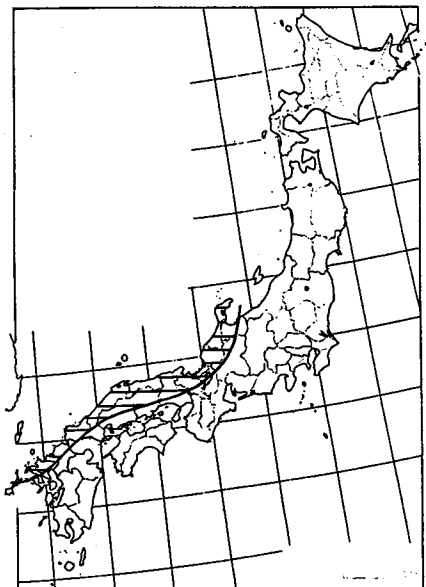


Fig. 7. Distribution pattern of Japan-Sea side type mainly east to Hokuriku.

Fig. 8. Distribution of *Mitella acerina* Makino.

Table 4. Pacific side type in Ashiu

No.	Species	Family
1	<i>Cryosplenium macrostemon</i>	Saxifragaceae
2	<i>Hydrangea serrata</i> var. <i>serrata</i>	Saxifragaceae
3	<i>Rubus illecebrosus</i>	Rosaceae
4	<i>Filipendula multijuga</i>	Rosaceae
5	<i>Daphniphyllum macropodum</i> var. <i>macropodum</i>	Daphniphyllaceae
6	<i>Acer amoenum</i> var. <i>amoenum</i>	Aceraceae
7	<i>Ilex sugeroki</i> var. <i>sugeroki</i>	Aquifoliaceae
8	<i>Ilex geniculata</i>	Aquifoliaceae
9	<i>Vaccinium hirtum</i>	Ericaceae
10	<i>Rhododendron indicum</i>	Ericaceae
11	<i>Carex morrowii</i> var. <i>morrowii</i>	Cyperaceae

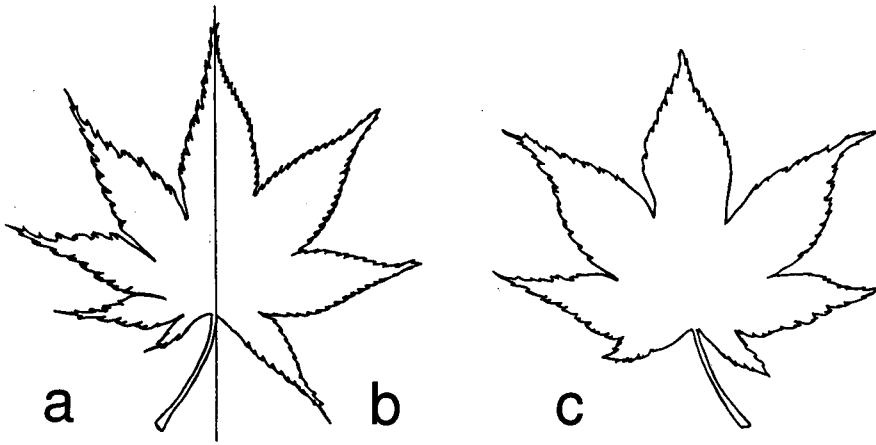


Fig. 9. Leaf shapes of *Acer amoenum* a) var. *matsumurae*, b) var. *amoenum*, c) intermediate form collected in Kamitani, Ashiu.

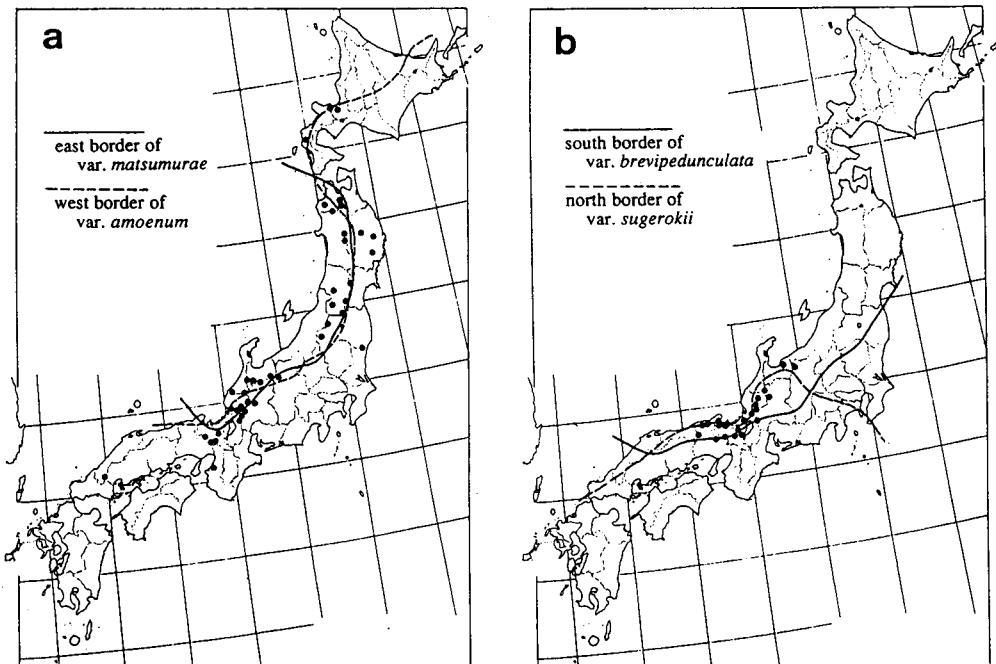


Fig. 10. Distributions of specimens with intermediate forms between a) *Acer amoenum* var. *amoenum* and var. *matsumurae*, b) *Ilex sugeroki* var. *sugeroki* and var. *brevipedunculata*, with distribution pattern of each varieties. Distribution pattern of each varieties is reproduced from Sakai (1988).

2. *The Plants with Intermediate Forms between Japan-Sea Side Type and Pacific Side Type.* In contrast with the Japan-Sea side type, the species which distribute mainly along the Pacific side of Japan are called the 'Pacific side type'. There are 11 Pacific side type species in Ashiu (Table 4). Most of them are not common in Ashiu, and not characteristic for its flora. But it is interesting to point out that some plants in Ashiu have the intermediate forms between the Japan-Sea side type and the Pacific side type.

In Japan, there are some species which are divided into (at least) two subtaxa (subspecies or varieties), one belonging to Japan-Sea side type and another to Pacific side type. For example, *Acer amoenum* has (at least) two varieties, var. *amoenum* and var. *matsumurae*,

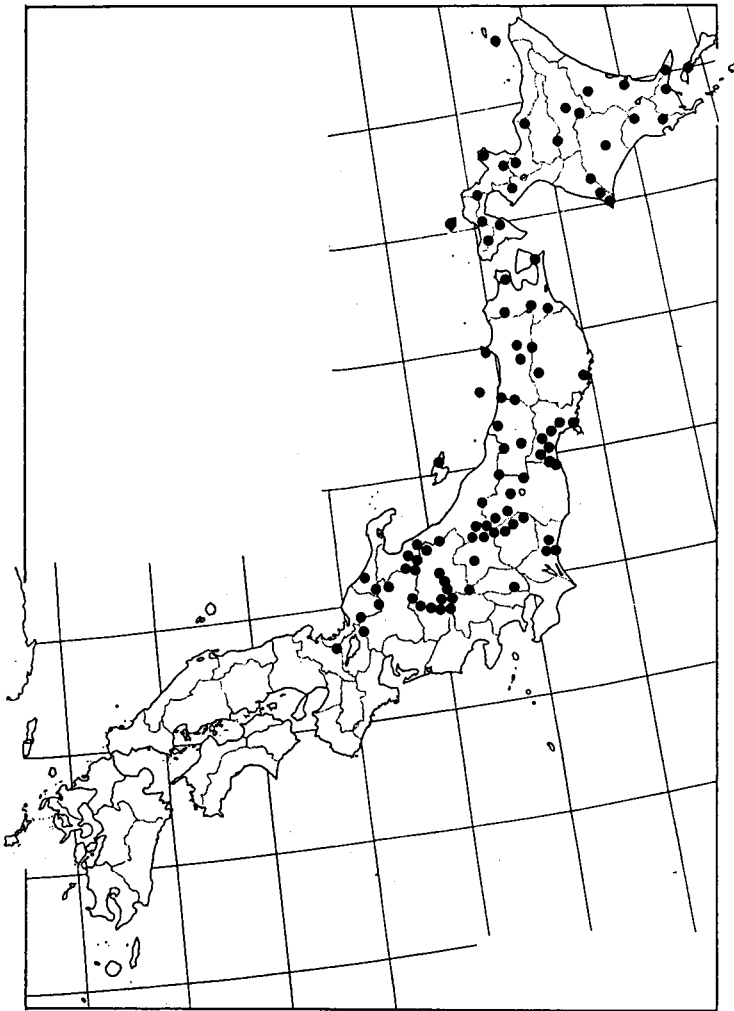


Fig. 11. Distribution of *Hemerocallis dumortieri* var. *esculenta*. Reproduced from Noguchi (1993).

Table 5. Species of plants with intermediate forms between Japan-Sea side type and Pacific side type.

Species	Japan-Sea side type	Pacific side type
<i>Daphniphyllum macropodum</i>	var. <i>humile</i>	var. <i>macropodum</i>
<i>Hydrangea serrata</i>	var. <i>megacarpa</i>	var. <i>serrata</i>
<i>Acer amoenum</i>	var. <i>matsumurae</i>	var. <i>amoenum</i>
<i>Ilex sugeroki</i>	var. <i>brevipedunculata</i>	var. <i>sugeroki</i>
<i>Aucuba japonica</i>	var. <i>borealis</i>	var. <i>japonica</i>

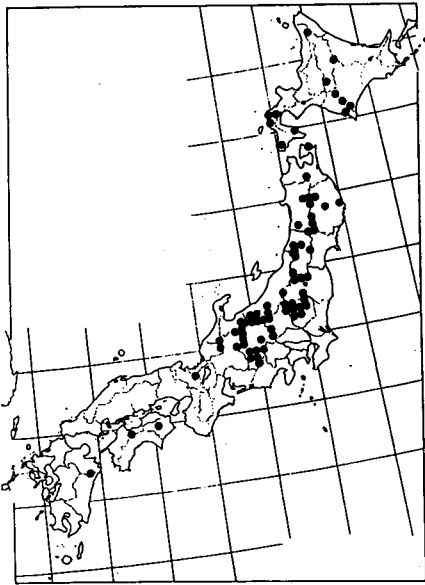


Fig. 12. Distribution of *Trautvetteria carolinensis* var. *japonica*. Modified from Horikawa (1986).

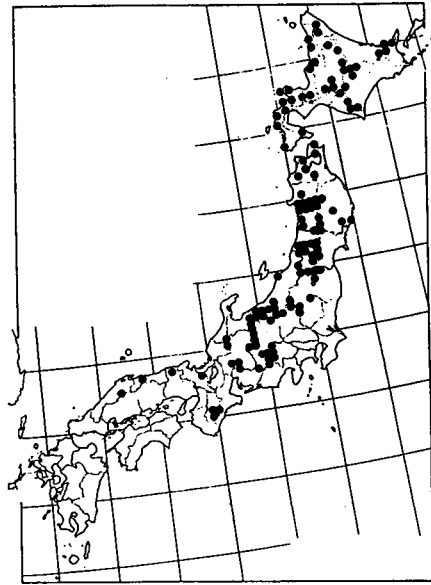


Fig. 13. Distribution of *Diphylllea grayi*. Modified from Horikawa (1986).

each of those is of Japan-Sea side type and Pacific side type respectively (see the distributions in Fig. 10). These varieties are usually distinguished by the shape of their leaves. However, the specimens collected in Kamitani, Ashiu, cannot be defined because of their intermediate leaf forms (Fig. 9). There are five species which have the intermediate forms in the specimens collected in Ashiu (Table 5). These specimens are inserted in either of the varieties with a note in this inventory.

The distributions of the plants with these forms in two species, *Acer amoenum* and *Ilex sugeroki* are shown in Fig. 10. Most of those plants are along the boundary between their two varieties. Hotta (1981) recognizes two groups in Japan-Sea side type which are specialized by their affinities for adapting to the peculiar environments of the Japan-Sea side regions. First there is a group that can be distinguished at species rank from their affinities, and secondly a group that can be distinguished only at subspecies or varietal

rank. He indicates that the differences between these two groups are due to their reproductive disjunctiveness accompanying their specialization and that the latter group might have crossbred with their affinities and produced the plants which have the intermediate forms. The distributions in Fig. 10 make his proposal more plausible.

**The Disjunctly Distributed Species in Ashiu.** *Hemerocallis dumortieri* var. *esculenta* is known to have its common distribution west to Mt. Ibuki in Chubu Distr. but distribute disjunctly in Ashiu (Fig.11). In addition to this, two species are newly found to have their disjuncted distributions in Ashiu, i.e., *Trautvetteria carolinensis* var. *japonica* and *Diphylleia grayi*. Both of these species have their common distributions (in Japan) west to Mt. Ibuki, and in Western Japan the former one disjunctly distributed only in Ashiu, Mt. Tebako in Kochi Pref., Mt. Tsurugi in Tokushima Pref., and Mt. Ookue in Miyazaki Pref. (Fig. 12), the latter one in Ashiu, Mt. Oomine and Mt. Odaigahara in Nara Pref., Mt. Hyounosen in Hyogo Pref., Mt. Daisen and Mt. Dougo in Tottori Pref. (Fig.13).

*Hemerocallis dumortieri* var. *esculenta* in Ashiu is found only on a steep cliff in Nakanotsubo, *Trautvetteria carolinensis* var. *japonica* only on rocky terraces in Hitsukuradani and Houtani, and *Diphylleia grayi* only on a steep slope free from trees in a branch of Shimodani. Murata (1990) recognized some species (including *Hemerocallis dumortieri* var. *esculenta*) managing to live in intolerable environments for trees in Ashiu as relics of the past vegetations. *Trautvetteria carolinensis* var. *japonica* and *Diphylleia grayi* are also supposed to be relics, which might have once spread west under a cooler climate in the glacial periods, but lost their western distributions because of the extension of the warm-favored species. Ashiu may contain some of the few remaining precious habitat for these relic species where warm-climate species which require higher nourishment cannot live.

Table 6. Naturalized species in Ashiu. Species with asterisk are confirmed for present existence.

No.	Species	Family
1	<i>Rumex acetosella</i>	Polygonaceae
2	<i>Rumex obtusifolius</i> *	Polygonaceae
3	<i>Euphorbia supina</i>	Euphorbiaceae
4	<i>Desmodium paniculatum</i>	Leguminosae
5	<i>Trifolium repens</i> *	Leguminosae
6	<i>Veronica persica</i> *	Scrophulariaceae
7	<i>Veronica arvensis</i> *	Scrophulariaceae
8	<i>Aster subulatus</i>	Compositae
9	<i>Crassocephalum crepidioides</i> *	Compositae
10	<i>Ambrosia artemisiaefolia</i> var. <i>elatio</i> r	Compositae
11	<i>Bidens frondosa</i> *	Compositae
12	<i>Erechtites hieracifolia</i>	Compositae
13	<i>Erigeron canadensis</i>	Compositae
14	<i>Helianthus tuberosus</i>	Compositae
15	<i>Stenactis annus</i> *	Compositae
16	<i>Taraxacum officinale</i> *	Compositae
17	<i>Agrostis gigantea</i> *	Gramineae

### The Naturalized Species

Naturalized species are a good index to see the effects of human impact on the environment. In this flora, 17 naturalized species are listed (Table 6).

However, not all of these species are still present in Ashiu. Naturalized species easily move as the environments change (Osada, 1976), and we cannot tell if those that once used to be in one place still remain there. This new flora does not avoid the naturalized species referred in the former inventories unless they were listed by misidentification, so that the naturalized species in this flora are to be thought of as an accumulation of the records of the former flora. The nine species with an asterisk in Table 6 are confirmed for their present existence by the field research.

Most of these nine species seen today are found around houses or working cabins in Sugou and Choujidani. *Bidens frondosa* and *Stenactis annus* are found in Makuratani and Shimodani, where tourists and fishermen often visit. *B. frondosa* also grows thick on a road around Naisugidani. *Crassocephalum crepidioides* is found along a road around Sugio-touge.

## Inventory of seed plants in Ashiu

### Gymnosperms

#### Cephalotaxaceae

*Cephalotaxus harringtonia* (Knight.) K. Koch var. *nana* (Nakai) Rehder *Haiinugaya*  
Okamoto 1930: 27 (as *C. drupacea* S. et Z.), Okamoto 1941: 28 (as *C. nana* Nakai), Watanabe 1973: II (in "Ichii-ka"; Taxaceae), Nakane 1986: 8, Yamanaka 1991: 1.  
Japan (S.W. Hokkaido, Honshu [mainly the Japan-Sea side], part of Shikoku.)  
Sugou—Koyomogi, *S. Yasuda* 63; Hitsukuradani, *S. Yasuda* 452; Choujidani, K. Iwatsuki 5518; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16679, 700m, *S. Tsugaru et al.* 17121; Ashiu, Z. Tashiro (1933 May), T. Nakai (1940 Jul.), T. Horikawa 353, 354.

#### Cupressaceae

*Chamaecyparis obtusa* (Siebold et Zucc.) Endl. *Hinoki*  
Okamoto 1930: 30 (as *C. obtusa* S. et Z.), Okamoto 1941: 30, Watanabe 1973: II, Nakane 1986: 9, Yamanaka 1991: 2.  
Japan (Honshu [north to Fukushima], Shikoku, Kyushu.)  
Haino, *S. Yasuda* 809.

*Thujopsis dolabrata* Siebold et Zucc.

*Hiba, Asunaro*

Okamoto 1930: 29, Okamoto 1941: 31, Watanabe 1973: II, Nakane 1986: 9, Yamanaka 1991: 2.  
Japan (N. & C. Honshu, Shikoku, Kyushu.)  
Gyobudani, N. Yamanaka 3173; Haino, ca. 600m, M. Hotta 1224.

#### Pinaceae

*Abies firma* Siebold et Zucc.

*Momi*

Okamoto 1930: 28, Okamoto 1941: 28 (in Abietaceae), Watanabe 1973: II, Nakane 1986: 8, Yamanaka 1991: 1.  
Japan (Honshu [north to Akita and Iwate], Shikoku, Kyushu.)  
Sugou, *S. Yasuda* 885; Sugou—Haino, *S. Yasuda* 902.

*Pinus densiflora* Siebold et Zucc.

*Akamatsu, Mematsu*

Okamoto 1930: 28, Okamoto 1941: 29, Watanabe 1973: II, Nakane 1986: 8, Yamanaka 1991: 1.  
Japan (S. Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Ussurie.



Kamitani, *S. Yasuda* 370; Mikunitouge, *S. Yasuda* 318.

*Pinus parviflora* Siebold et Zucc.

*Himekomatsu, Goyoumatsu*

Okamoto 1930: 29 (as *P. pentaphylla* Mayr), Okamoto 1941: 29, Watanabe 1973: II, Nakane 1986: 8, Yamanaka 1991: 1.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu.)

Nanase—Haino, *M. Tagawa* 2100; Ashiu, *G. Koidzumi*, (1921 Aug.), *T. Nakai* (1940 Jul.)

*Pinus thunbergii* Parlature

*Kuromatsu*

Okamoto 1930: 28, Okamoto 1941: 29, Watanabe 1973: II, Nakane 1986: 9, Yamanaka 1991: 2.

Japan (Honshu [north to Aomori], Shikoku, Kyushu, Ryukyus [to Tokara Isl.]), S. Korea.

Possibly planted.

Kamitani, *S. Yasuda* 993.

*Tsuga sieboldii* Carr.

*Tsuga, Toga*

Okamoto 1930: 27, Okamoto 1941: 29 (in Abietaceae), Watanabe 1973: II, Nakane 1986: 8, Yamanaka 1991: 1.

Japan (Honshu [north to Mt. Yamizo in Fukushima], Shikoku, Kyushu), Korea (Ullung isl.)

Sugou—Koyomogi, *S. Yasuda et al.* 808; Ashiu, *T. Nakai* (1940 Jul.)

### Sciadopityaceae

*Sciadopitys verticillata* (Thunb.) Siebold et Zucc.

*Kouyamaki, Honmaki*

Okamoto 1930: 29, Okamoto 1941: 30, Watanabe 1973: II (in "Sugi-ka"; Taxodiaceae), Nakane 1986: 9 (in "Matsu-ka"; Pinaceae), Yamanaka 1991: 2.

Japan (Honshu [north to Fukushima], Shikoku, Kyushu [south to Miyagi.])

Nanase—Haino, *M. Tagawa* (1933 Aug.)

### Taxaceae

*Torreya nucifera* (L.) Siebold et Zucc. var. *radicans* Nakai

*Chabogaya*

Okamoto 1930: 27, Okamoto 1941: 28 (as *T. fruticosa* Nakai in Torreyaaceae), Watanabe 1973: II, Nakane 1986: 8, Yamanaka 1991: 1.

Japan (Honshu [mainly the Japan-Sea side], Shikoku.)

Kaduradani, *S. Yasuda* 245; Nakayama—Iwatani, *M. Tagawa* (1933 Jul.); Mt. Mikunidake, *G. Koidzumi et al.* (1921 Aug.); Ashiu, *S. Okamoto* (1936 Sept.), *T. Nakai* (1940 Jul.), *T. Shimizu* 3, *T. Horikawa* 352.

### Taxodiaceae

*Cryptomeria japonica* (L. fil.) D. Don var. *radicans* Nakai

*Ashiusugi*

Okamoto 1930: 29 (as *C. japonica* (L. fil.) D. Don, "Sugi" in Pinaceae), Okamoto 1941: 30 (as *C. japonica* (L. fil.) D. Don, "Sugi" in Cryptomeriaceae), Watanabe 1973: II, 65-66 (as "Sugi"), Nakane 1986: 8 (as "Sugi" in "Matsu-ka"), Yamanaka 1991: 2.

Japan (Honshu, Shikoku, Kyushu), China.

Sugou—Haino, *S. Yasuda et al.* 950; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16406; Ashiu, *T. Nakai* (1940 Jul.)

### Angiosperms (Monocotyledons)

#### Alismataceae

*Alisma canaliculatum* A. Br. et Bouche

*Heraomodaka*

Okamoto 1941: 106 (*A. canaliculatum* A. Br. et Bouche), Watanabe 1973: II, Nakane 1986: 57. Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Choujidani, *S. Okamoto* (1936 Sept.)

*Sagittaria trifolia* L.

*Omodaka*

Okamoto 1941: 107 (as *S. trifolia* L. var. *typica* Makino f. *longiloba* Makino, "Hosobaomodaka"), Watanabe 1973: II, Nakane 1986: 57.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, India.

Choujidani, *S. Yasuda* 1195.

**Amaryllidaceae***Lycoris radiata* Herb.*Higanbana*

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), China.

No specimen.

**Araceae***Acorus calamus* L.*Shoubu*Okamoto 1941: 110 (as *A. asiaticus* Nakai), Watanabe 1973: III, Nakane 1986: 65.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread from the warm to temperate regions of N. Hemisphere.

Naisugidani—Hitsukuradani—Choujidani, *A. Nitta 12581*; Kamitani, *M. Tagawa 2096*, *S. Yasuda et al. 530*; Mt. Mikunidake, 650m, *S. Tsugaru 16425*; Chiimura, *G. Koidzumi (1922 May)*.*Arisaema amurense* Maxim. subsp. *robustum* (Engler) Ohashi et J. Murata var. *ovale* (Nakai) Ohashi et J. Murata*Ashiutennanshou*Okamoto 1941: 110 (as *A. ovale* Nakai), Watanabe 1973: III, 63 -64, Nakane 1986: 65.

Japan (Honshu [the Japan-Sea side in Chubu Distr. and Kinki Distr.])

Sugou—Ootani, *S. Yasuda 196*; Nakayama—Shimodani, *S. Okamoto (1930 May)*; Keyakizaka, *G. Murata 7081*; Kamitani, *S. Yasuda 136*; Mt. Mikunidake, 700m, *S. Tsugaru et al. 16272*; Ashiu, *S. Okamoto (1936 May)*.*Arisaema serratum* (Thunb.) Schott*Kouraitennanshou, Mamushigusa*Okamoto 1941: 110 (as *A. peninsulae* Nakai), Watanabe 1973: III, Nakane 1986: 65.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Kurils.

Sugou—Akasaki, *S. Yasuda 211*; Akasaki, *S. Okamoto (1936 May)*; Sugou—Kaduragoya, ca. 400m, *M. Ito et al. 1297*; Kaduradani, *S. Yasuda 256*; Onokodani, *S. Okamoto (1936 May)*; Naisugitani, *S. Okamoto (1936 May)*, (1938 May); Choujidani, ca. 600m, *H. Takahashi 926*; Makuratani, *S. Yasuda 316*; Sasari, 600-900m, *G. Murata et al. 55*.*Arisaema yamatense* (Nakai) Nakai*Muroutennanshou*

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 65.

Japan (Honshu [Aichi, Fukui, and Kinki Distr.])

Kaduradani, *S. Yasuda 118*; Naisugidani, *S. Okamoto (1936 May)*, (1936 Oct.); Choujidani, 700m, *G. Murata et al. (1972 May)*; Sasari, 750m, *Y. Inamasu 48*.*Pinellia ternata* (Thunb.) Breit.*Karasubishaku, Hange*Okamoto 1941: 110 (as *P. ternata* Breit. var. *viridis* Makino), Watanabe 1973: III, Nakane 1986: 65.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Nakayama, *S. Okamoto (1940 Sept.)**Symplocarpus nipponicus* Makino*Himezazensou*

New.

Japan (Hokkaido, Honshu [west to Chubu Distr.]), N. Korea.

Rare on the west of Mt. Ibuki.

Choujidani, *M. Hotta 15709*; Mt. Mikunidake, *S. Tsugaru et al. 18270*.**Commelinaceae***Commelina communis* L.*Tsuyukusa*

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 57.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Ussurie, Sakhalin, Siberia, Caucasus.

Akasaki, *S. Yasuda 693*; Nakayama, *S. Okamoto (1940 Sept.)**Murdannia keisak* (Hassk.) Hand.-Mazz.*Ibokusa*Okamoto 1941: 110 (as *Aneilema Keisak* Hassk.), Watanabe 1973: III, Nakane 1986: 57.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Amur, Ussurie.

Choujidani, *S. Yasuda 741*.

**Cyperaceae***Carex blepharicarpa* Franch.*Shoujousuge*

Okamoto 1941: 108, Watanabe 1973: III, Nakane 1986: 62.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 505; Ashiu, *G. Murata* 7052.*Carex breviculmis* R. Br.*Aosuge*Okamoto 1941: 109 (as *C. leucochlora* Bunge), Watanabe 1973: III, Nakane 1986: 62.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, India, New Guinea, Australia.

No specimen.

*Carex conica* Boott*Himekansuge*

Okamoto 1941: 108, Watanabe 1973: III, Nakane 1986: 62.

Japan (S.E. Hokkaido, Honshu, Shikoku, Kyushu), S. Korea.

No specimen.

*Carex curvicolis* Franch. et Sav.*Narukosuge, Yamanaruko*

Okamoto 1941: 108, Watanabe 1973: III, Nakane 1986: 63.

Japan (S.E. Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1267, *S. Yasuda et al.* 117, 1099, 1127; Hitsukuradani, *S. Yasuda* 190; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 506; Makuratani, *S. Yasuda* 262; Mt.Mikunidake, 640m, *S. Tsugaru et al.* 16262.*Carex dispalata* Boott*Kasasuge*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Ussurie, Sakhalin.

Choujidani, *S. Yasuda* 1149.*Carex dissitiflora* Franch.*Miyamajuzusuge*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils.

Hitsukuradani, *S. Yasuda* 1137, 1158, 1167; Kamitani, *S. Yasuda et al.* 1116; Makuratani, *S. Yasuda* 301; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16266, 670m, 16309.*Carex dolichostachya* Hayata var. *glaberrima* (Ohwi) T. Koyama*Miyamakansuge*Okamoto 1941: 109 (as *C. multifolia* Ohwi), Watanabe 1973: III, Nakane 1986: 63.

Japan (Hokkaido [Oshima Pen.], Honshu, Shikoku, Kyushu.)

Naisugidani, *S. Yasuda* 1144; Bunanokitouge—Hacchu, *S. Yasuda* 1107; Nakayama—Iwatani, *S. Yasuda et al.* 1143; Nodabata, *S. Yasuda* 843; Kamitani, *S. Yasuda* 1124; Makuratani, *S. Yasuda* 306; Sasari—Haino, *S. Yasuda* 1131.*Carex doniana* Spreng.*Shirasuge*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, India, Malaysia, Indonesia.

Kamitani, *S. Yasuda et al.* 1115.*Carex fedia* Nees var. *miyabei* (Franch.) T. Koyama*Biroudosuge*Okamoto 1941: 109 (as *C. Miyabei* Franch.), Watanabe 1973: III, Nakane 1986: 64.

Japan (Hokkaido, Honshu, Kyushu.) Spread from Korea to India.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1280, *S. Yasuda* 1102; Chiimura, *G. Koidzumi* (1922 May); Ashiu, 600-900m, *G. Murata et al.* 6.*Carex flabellata* Lév. et Van.*Yamatekirisuge*

New.

Japan (Hokkaido, Honshu.)

Shimodani, *S. Yasuda* 1110.*Carex foliosissima* Fr. Schm.var. *foliosissima**Okunokansuge*

New.

- Japan (Hokkaido, Honshu, Shikoku, Kyushu), Sakhalin.  
 Sugou—Koyomogi, *S. Yasuda et al.* 1128; Hitsukuradani, *S. Yasuda* 1140; Naisugidani, *S. Okamoto* (1937 May), *S. Yasuda et al.* 1141; Kamitani, *S. Yasuda et al.* 1114; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16265; Sasari, *K. Iwatsuki* 660; Ashiu, *Y. Inamasu* 22.
- var. *latissima* (Ohwi) Akiyama *Hirohaokunokansuge, Habahirosuge*  
 New.  
 Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 507; Chiimura, *G. Koidzumi* (1922 May)= Syntype of *C. morrowii* subsp. *foliosissima* var. *latissima* Ohwi.
- Carex incisa* Boott *Kawarasuge, Tagosuge*  
 Okamoto 1941: 108, Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Hokkaido, Honshu), N. & N.E. China, Korea, Ussurie.  
 Kamitani, *S. Yasuda* 1119.
- Carex insaniae* Koidz. *Hirohasuge, Hirobasuge*  
 var. *insaniae*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 62.  
 Japan (Hokkaido, Honshu [in the Japan-Sea side]), S. Kurils.  
 Sugou—Nanase, *S. Yasuda et al.* 1104, 1125; Bunanokitouge—Nakayama, *S. Yasuda* 1103; Kamitani, *S. Yasuda et al.* 1122; Choujidani, 650m, *S. Tsugaru et al.* 16261; Makuratani, *S. Yasuda* 303; Ashiu—Sasari, 600-900m, *G. Murata et al.* 34; Ashiu, *Z. Tashito* (1933 May), *G. Murata* 7049, 400m, *Y. Inamasu* 11.
- var. *papillaticulmis* (Ohwi) Ohwi *Aobasuge*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Honshu [north to Chubu Distr.], Shikoku, Kyushu.)  
 No specimen.
- Carex ischnostachya* Steud. *Juzusuge*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 62.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.  
 Kamitani, *S. Okamoto* (1936 Jul.), *S. Yasuda et al.* 1123, 1147; Choujidani, *S. Yasuda et al.* 1136; Mt. Mikunidake, 690m, *S. Tsugaru et al.* 16307; Sasari, *S. Okamoto* (1936 Jul.)
- Carex japonica* Thunb. *Higokusa*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 62.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Sakhalin, Korea, China.  
 Sugou, *S. Yasuda et al.* 1126; Hitsukuradani, *S. Yasuda* 1138; Shimodani, *S. Yasuda* 1109; Kamidani, *S. Okamoto* (1936 Jul.), *S. Yasuda et al.* 1121; Choujidani, *S. Yasuda et al.* 1133; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16308.
- Carex kiotensis* Franch. et Sav. *Tekirisuge*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu.)  
 No specimen.
- Carex maximowiczii* Miq. *Gousou*  
 var. *maximowiczii*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea, China.  
 Choujidani, *S. Yasuda* 1120, 1134.
- var. *levisaccus* Ohwi *Hoshinashigousou*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea, China.  
 No specimen.
- Carex mollicula* Boott *Himeshirasuge*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin, S. Korea, China.  
 Sugou—Kaduradani, *S. Yasuda* 1157; Hitsukuradani, *S. Yasuda* 1175; Choujidani, *S. Okamoto* (1936

*Jul.*), *S. Yasuda* 1145; Makuratani, *S. Yasuda* 305; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16697.

*Carex morrowii* Boott

var. *morrowii*

*Kansuge*

Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.

Japan (Honshu [east to Fukushima, mainly in the Pacific side], Shikoku, Kyushu.)

Sugou—Haino, *S. Yasuda et al.* 1129; Nodabata, *S. Yasuda* 842.

var. *temnolepis* (Franch.) Ohwi

*Hosobakansuge*

Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.

Japan (the Japan-Sea side from Akita to the Tango Range).

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1257, *S. Yasuda et al.* 1130; Naisugidani, *S. Okamoto* (1938 May), *S. Yasuda et al.* 1143; Bunanokitouge—Hacchuusan, *S. Yasuda et al.* 1105; Ashiu, *G. Murata* 7071.

*Carex olivacea* Boott var. *angustior* Kukenth.

*Miyamashirasuge*

Okamoto 1941: 108 (as *C. confertiflora* Boott), Watanabe 1973: III, Nakane 1986: 63.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Nakayama, *S. Okamoto* (1953 Jul.); Kamitani, *S. Okamoto* (1936 Jul.); Nodabata, ca. 650m, *M. Hutoh* 24122; Sukendani, *S. Yasuda* 1146; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16422; Ashiu, *S. Okamoto* (1953 Jul.)

*Carex parciflora* Boott var. *macroglossa* (Franch. et Sav.) Ohwi

*Kojuzusuge*

Okamoto 1941: 109 (as *C. macroglossa* Fr. et Sav.), Watanabe 1973: III, Nakane 1986: 62.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea.

Kamitani, *S. Yasuda et al.* 1119; Makuratani, *S. Yasuda* 259.

*Carex persistens* Ohwi

*Kinkikakasuge*

Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 62.

Japan (Honshu [S. Nagano, Hokuriku Distr., Kinki Distr., and Chugoku Distr.]

Sugou—Haino, *S. Yasuda et al.* 1097, 1132; Hitsukuradani, *S. Yasuda* 1174; Mt. Mikunidake, 640m, *S. Tsugaru et al.* 16263, 670m, 16267, 16306; Chiimura, *G. Koidzumi* (1922 May.); Ashiu, *S. Okamoto* (1953 Jul.)

*Carex podogyna* Franch. et Sav.

*Tanukiran*

New.

Japan (S.W. Hokkaido, N. Honshu [south to Kanto Distr.]

Chiimura, *G. Koidzumi* (1922 May).

*Carex shimidzensis* Franch.

*Miyamanaruko, Azumanaruko*

Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 63.

Japan (Hokkaido, Honshu, N. Kyushu), S. Kurils, Korea (Ullung Isl.)

Shimodani, *S. Yasuda* 1111; Nadabata, *S. Yasuda* 1150; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16423; Ashiu, *S. Okamoto* (1953 Jul.)

*Carex siderosticta* Hance

*Taganesou*

Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 64.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.

No specimen.

*Carex stenostachys* Franch. et Sav.

*Nishinohonmonjisuge*

New.

Japan (Honshu [east to Chubu Distr.]

Choujidani, *K. Iwatsuki* 708.

*Carex thunbergii* Steud.

*Asesuge, Azesuge*

Okamoto 1941: 109, Watanabe 1973: III (as "Azesuge"), Nakane 1986: 63.

Japan (Hokkaido, Honshu, Shikoku.)

Choujidani, *S. Yasuda* 1148.

*Cyperus amuricus* Maxim.

*Chagayatsuri*

Okamoto 1941: 109 (as *C. amuricus* Maxim. var. *laxa* Nakai), Watanabe 1973: III, Nakane 1986:

64.  
 Japan (Honshu, Shikoku, Kyushu), Korea, China, Amur, Ussurie, Taiwan.  
 Naisugidani, S. *Okamoto* (1951 Aug.); Nakayama, S. *Okamoto* (1940 Sept.); Ashiu, S. *Okamoto* (s.n.)
- Cyperus brevifolius* (Rottb.) Hassk. var. *leiolepis* (Franch. et Sav.) T. Koyama  
*Himekugu*  
 Okamoto 1941: 109 (as *Kyllingla brevifolia* Rothb. var. *leiolepis* Hara), Watanabe 1973: III, Nakane 1986: 64.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.  
 Choujidani, S. *Yasuda* 1194.
- Cyperus difformis* L. *Tamagayatsuri*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 65.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.) Widespread in most of the warm regions of the world.  
 No specimen.
- Cyperus flaccidus* R. Br. *Hinagayatsuri*  
 Okamoto 1941: 109 (as *C. hakonensis* Fr. et Sav.), Watanabe 1973: III, Nakane 1986: 64.  
 Japan (Honshu, Shikoku, Kyushu), Korea, China, Australia.  
 Ashiu, S. *Okamoto* (1936 Sept.)
- Cyperus iria* L. *Kogomegayatsuri*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 64.  
 Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, India, Malaysia, Australia, Africa.  
 No specimen.
- Cyperus microiria* Steud. *Kayatsurigusa, Masukusa*  
 Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 64.  
 Japan (Honshu, Shikoku, Kyushu), Korea, China.  
 Nanase, S. *Okamoto* (1936 Sept.)
- Cyperus orihostachyus* Franch. et Sav. *Ushikugu*  
 Okamoto 1941: 109 (as *C. orihostachyus* Fr. et Sav. var. *robustus* Hara), Watanabe 1973: III, Nakane 1986: 64.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, E. Siberia.  
 Sugou, S. *Okamoto* (1936 Sept.); Choujidani, S. *Okamoto* (1936 Sept.)
- Eleocharis congesta* D. Don *Harii*  
 Okamoto 1941: 109 (*Heleocharis japonica* Miq.), Watanabe 1973: III, Nakane 1986: 62.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, India, Indonesia, Philippines.  
 Sugou, S. *Okamoto* (1936 Sept.)
- Eleocharis mamillata* Lindb. fil. var. *cyclocarpa* Kitag. *Numaharii, Oonumaharii*  
 Okamoto 1941: 109 (as *Heleocharis mamillata* Lindb. f.), Watanabe 1973: III (as "Ohnumaharii"), Nakane 1986: 62.  
 Japan (Hokkaido, Honshu, Kyushu), Korea, N.E. China, Ussurie.  
 Kamitani, M. *Tagawa* (1933 Jul.), Y. Araki 681, S. *Okamoto* (1936 Jul.), S. *Yasuda et al.* 348; Nodabata, M. *Hutoh* 24181; Mt. Mikunidake, 650m, S. *Tsugaru et al.* 16421.
- Eleocharis wichuræ* Böckl. *Shikakui*  
 Okamoto 1941: 109 (as *Heleocharis Wichurai* Boeck), Watanabe 1973: III, Nakane 1986: 64.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea, China, Ussurie.  
 Nakayama, S. *Okamoto* (1940 Sept.); Nodabata, M. *Hutoh* 24130; Choujidani, S. *Yasuda et al.* 490.
- Fimbristylis miliacea* (L.) Vahl. *Hideriko*  
 Okamoto 1941: 109 (as *F. miliacea* Vahl), Watanabe 1973: III, Nakane 1986: 63.  
 Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, India, Indonesia, Australia, N. America (along the west coast.)  
 No specimen.

*Fimbristylis subbispicata* Nees et Mey.

Yamai

Okamoto 1941: 109, Watanabe 1973: III, Nakane 1986: 62.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, India.

No specimen.

*Lipocarpa microcephala* (R. Br.) Kunrh

Hinjugayatsuri

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 64.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), China, Taiwan, India, Malaysia, Indonesia, Australia.

Ashiu, *S. Okamoto* (1936 Sept.)*Scirpus juncoides* Roxb.

Hotarui

Okamoto 1941: 110 (as *S. Hatarui* Ohwi), Watanabe 1973: III, Nakane 1986: 64.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Ussuric, India, Indonesia.

Kamitani, *S. Yasuda et al.* 1005; Choujidani, *S. Okamoto* (1936 Sept.), 600m, *G. Murata* 45600, *S. Yasuda* 743; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 17167.*Scirpus tabernaemontani* Gmel.

Futoi

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 62.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Kurils, Sakhalin, from Korea to Europe.

No specimen.

*Scirpus triangulatus* Roxb.

Kangarei

Okamoto 1941: 110 (as *S. mucronatus* L.), Watanabe 1973: III, Nakane 1986: 62.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, India, Malaysia, Indonesia.

No specimen.

*Scirpus wichurae* Böckl.

Aburagaya

Okamoto 1941: 110 (as "Aibasou"), Watanabe 1973: III, Nakane 1986: 62, 64 (as "Aibasou" and "Aburagaya").

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Ootani, *S. Okamoto* (1940 Sept.); Choujidani, *S. Yasuda et al.* 532; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16823.**Dioscoreaceae***Dioscorea gracillima* Miq.

Tachidokoro

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 66.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), China.

No specimen.

*Dioscorea japonica* Thunb.

Yamanoimo

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 66.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Choujidani, *S. Yasuda et al.* 702; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16819.*Dioscorea quinqueloba* Thunb.

Kaededokoro

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 66.

Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu, Ryukyus), Korea, China.

Sugou, *T. Ohtomo* 394 (Herb. Ashiu).*Dioscorea septemloba* Thunb.

Kikubadokoro, Momijidokoro

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 66.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 445; Hitsukuradani, *S. Yasuda* 421; Keyakizaka, *S. Okamoto* (1936 Oct.);Sukendani, *S. Yasuda et al.* 588; Choujidani, *M. Hotta* 15702; Sasari, *S. Okamoto* (1937 Jul.); Ashiu,*S. Okamoto* (1936 Jul.), (1940 Sept.)*Dioscorea tokoro* Makino

Onidokoro

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 66.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Nanase, *S. Yasuda* 670; Mt. Mikunidake, 650m, *S. Tsugaru* 16820.

**Eriocaulaceae***Eriocaulon cinereum* R. Br.

Hoshikusa

Okamoto 1941: 110 (as *E. Sieboldianum* S. et Z.), Watanabe 1973: III, Nakane 1986: 66.

Japan (Honshu, Shikoku, Kyushu, Ryukyu), Korea, China, Taiwan, Philippines, India, Java, Australia, Africa.

No specimen.

*Eriocaulon hondoense* Satake

Nippon'inunohige

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

Nodabata, S. Yasuda et al. 782; Choujidani, S. Yasuda 742; Mt. Mikunidake, S. Okamoto (1936 Sept.)

*Eriocaulon robustius* (Maxim.) Makino

Hirohanoinunohige

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 66.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie, Siberia.

Sugou, S. Okamoto (1932 Oct.); Sasaritouge, H. Koyama 924.

**Gramineae***Agropyron tsukushiense* Honda var. *transiens* (Hack.) Osada

Kamojigusa

Okamoto 1941: 107 (as *A. semicostatum* Nees), Watanabe 1973: II, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Sugou—Nanase, S. Yasuda 671; Hitsukuradani, S. Yasuda 1008.

*Agrostis clavata* Trin. subsp. *matsumurae* (Hack. ex Honda) T. Tateoka

Nukabo

Okamoto 1941: 107 (as *A. Matsumurae* Hack), Watanabe 1973: II, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea Chinese Continent, Taiwan.

Sugou—Kaduradani, S. Yasuda 1154; Sukendani, S. Yasuda et al. 1043; Mt. Mikunidake, 660m, S. Tsugaru et al. 16303; Sasari—Haino, S. Yasuda et al. 988.

*Agrostis flaccida* Hack.

Miyamanukabo

New.

Japan (Uncommon; Hokkaido, Honshu, Shikoku, Kyushu), Korea, S. Kurils, Sakhalin, Kamchatka.

Sugou—Kaduradani, S. Yasuda 511; Nakanotsubo, S. Yasuda et al. 610.

*Agrostis gigantea* Roth.

Konukagusa

Okamoto 1941: 107 (as *A. palustris* Hudson), Watanabe 1973: II, Nakane 1986: 67.

Native to temperate regions of N. Hemisphere. Introduced to Japan as a fodder, now widely naturalized in all region.

Naturalized widely to the temperate regions in the Northern Hemisphere.

No specimen.

*Alopecurus aequalis* Sobol. var. *amurensis* (Komar.) Ohwi

Suzumenoteppou

Okamoto 1941: 107 (as *A. geniculatus* L.), Watanabe 1973: II, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Far E. Siberia.

No specimen.

*Arthraxon hispidus* (Thunb.) Makino

Kobunagusa

Okamoto 1941: 107 (as *A. hispidus* Makino var. *brevisetus* Hara), Watanabe 1973: III, Nakane 1986: 68.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, and widely distributed in subtropical Asia.

Yusen, M. Andoh 1 (Herb. Ashiu).

*Arundinella hirta* (Thunb.) C. Tanaka

Todashiba, Ketodashiba

Okamoto 1941: 107 (as *A. hirta* Tanaka var. *ciliata* Koidz.), Watanabe 1973: II, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou, S. Okamoto (1936 Sept.); Nakayama, S. Okamoto (1940 Sept.); Choujidani, S. Yasuda et al. 703, 745; Mt. Mikunidake, 650m, S. Tsugaru et al. 16827; Ashiu, S. Okamoto (1936 Sept.)

*Brachypodium sylvaticum* (Huds.) Beauv.

Yamakamojigusa

Okamoto 1941: 107 (as *B. miserum* Koidz.), Watanabe 1973: II, Nakane 1986: 68.



Japan (Hokkaido, Honshu, Shikoku, Kyushu). Widespread in the temperate regions of Eurasian Continent.

Sugou—Kaduradani, *S. Yasuda* 266.

*Bromus pauciflorus* (Thunb.) Hack.

*Kitsunegaya*

Okamoto 1941: 107 (as *B. remotiflorus* Ohwi), Watanabe 1973: II, Nakane 1986: 70.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou, *S. Okamoto* (1935 Jul.); Akasaki, *S. Yasuda* 694.

*Brylkinia caudata* (Munro) Fr. Schm.

*Hogaerigaya*

Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 69.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Sakhalin, Kurils, N. & E. China.

Sugou—Kaduradani, *S. Yasuda* 266; Hitsukuradani, *S. Yasuda et al.* 422, 1027; Jizoutouge—Choujidani, 700-750m, *S. Fujii* 2460; Sasari—Haino, *S. Yasuda et al.* 990; Chiimura, *G. Koidzumi* (1922 May).

*Calamagrostis brachytricha* Steud.

*Nogariyasu, Saitougaya*

Okamoto 1941: 107 (as *C. arundinacea* Roth. var. *brachytricha* Hack.), Watanabe 1973: II, Nakane 1986: 68.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, Chinese Continent, Taiwan, Far E. Siberia. Choujidani, *S. Yasuda* 1189; Jizoutouge—Nakayama—Sugiotouge, 660m, *S. Tsugaru et al.* 17168.

*Calamagrostis epigeios* (L.) Roth

*Yamaawa*

Watanabe 1973: II, Nakane 1986: 68.

Japan (Hokkaido, Honshu, Shikoku, Kyushu). Widespread in the temperate regions of N. Hemisphere. No specimen.

*Calamagrostis hakonensis* Franch. et Sav.

*Himenogariyasu*

Okamoto 1941: 107 (as *C. sachalinensis* Fr. Schm.), Watanabe 1973: II, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), N. China, Kurils, Sakhalin, Kamchatka.

Ashiu, *Y. Araki* (1933 Jul.)

*Calamagrostis longiseta* Hack.

*Higenogariyasu*

Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 70.

Japan (Honshu). Rare in the regions east to Kinki district.

Sugou—Akasaki, *S. Yasuda* 444, 695.

*Diarrhena japonica* Franch. et Sav.

*Tatsunohige*

Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 68.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

Hitsukuradani, *S. Yasuda et al.* 555, 1188; Naisugidani, *S. Okamoto* (1936 Sept.), (1940 Sept.); Jizoutouge—Nakayama—Sugiotouge, 670m, *S. Tsugaru et al.* 17174; Ashiu, *S. Okamoto* (1931 Aug.)

*Digitaria ciliaris* (Retz.) Koel.

*Mehishiba*

Okamoto 1941: 107 (as *D. sanguinalis* Scop. var. *ciliaris* Doell), Watanabe 1973: II, Nakane 1986: 70.

Japan (Common in all regions). Widespread in warm and tropical regions of the world.

Sugou—Nanase, *S. Yasuda* 678.

*Digitaria violascens* Link

*Akimehishiba*

Okamoto 1941: 107 (as *D. Ischaemum* Muhl.), Watanabe 1973: II, Nakane 1986: 70.

Japan (Common in all regions). Widespread in the tropical to subtropical regions of the world.

Ashiu, *S. Okamoto* (1936 Sept.)

*Echinochloa crus-galli* (L.) Beauv.

*Inubie*

Okamoto 1941: 107 (as *E. crus-galli* Beauv. subsp. *submutica* Honda var. *typica* Honda), Watanabe 1973: III, Nakane 1986: 70.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus). Widespread in warm-temperate to tropical regions of the world.

No specimen.

- Eragrostis ferruginea* (Thunb.) Beauv. Kazekusa  
Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 68.  
Japan (Honshu, Shikoku, Kyushu), Korea, China, Sikkim, Tibet.  
Hitsukuradani, *S. Yasuda* 1185; Choujidani, *S. Yasuda et al.* 706.
- Eragrostis multicaulis* Steud. Niwahokori  
Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 68.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Sakhalin, Ussurie, Korea, Taiwan, Chinese Continent, India, Malesia. Naturalized in N. America.  
No specimen.
- Festuca parvigluma* Steud. Toboshigara  
Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 69.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, N. India.  
Sugou—Kaduradani, *S. Yasuda* 1153; Hitsukuradani, *S. Yasuda* 395, 1028; Mt. Mikunidake, *S. Tsugaru et al.* 16304; Chiimura, *G. Koidzumi* (1922 May).
- Hierochloa odorata* (L.) Beauv. var. *pubescens* Krylov. Koubou  
Okamoto 1941: 107 (as *H. Bungeana* Trin.), Watanabe 1973: II, Nakane 1986: 69.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, Kurils, Sakhalin, Siberia.  
Sugou—Iguri, *S. Okamoto* (1936 May).
- Isachne globosa* (Thunb.) O. Kuntze Chigozasa  
Okamoto 1941: 107, Watanabe 1973: III, Nakane 1986: 68.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, Taiwan, Chinese Continent, India, Malaysia, Micronesia, Australia.  
Choujidani, *S. Okamoto* (1936 May), *K. Iwatsuki* 5503, *S. Yasuda et al.* 534, 704; Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16824.
- Leersia oryzoides* (L.) Swartz. Ezonosayanukagusa  
New.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu). Widespread in temperate regions of N. Hemisphere.  
Kamitani, *S. Yasuda* 788; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 17169.
- Leersia sayanuka* Ohwi Sayanukagusa  
Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 67.  
Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
Choujidani, *S. Yasuda et al.* 744; Jizoutouge—Nakayama—Sugiotouge, 660m, *S. Tsugaru et al.* 17170.
- Lophatherum gracile* Brongn. Sasakusa  
Okamoto 1941: 107 (*L. gracile* Brong. var. *elatum* Hack), Watanabe 1973: II, Nakane 1986: 69.  
Japan (S. Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, Taiwan, Philippines, S. Chinese Continent, Burma, India, Indonesia, New Guinea.  
Sugou—Nanase, *S. Yasuda* 760.
- Melica nutans* L. Komegaya  
Okamoto 1941: 107, Watanabe 1973: II, Nakane 1986: 69.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu). Widespread in northern half of Eurasian Continent.  
Sugou—Akasaki, ca. 400m, *E. Okubo et al.* 16, *S. Yasuda* 226, 1090; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1259; Hitsukuradani, *S. Yasuda* 191; Bunanokitouge—Nakayama, *S. Yasuda* 948; Kamitani, *S. Yasuda* 151; Ashiu, *G. Murata* 7051.
- Microstegium japonicum* (Miq.) Koidz. Sasagaya  
Okamoto 1941: 108 (as *M. nudum* A. Camus), Watanabe 1973: III, Nakane 1986: 70.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, China, Caucasus.  
Shimotani, *S. Miyake et al.* 136 (Herb. Ashiu).
- Microstegium nudum* (Trin.) A. Camus Miyamasasagaya  
Okamoto 1941: 107 (as *M. Mayebaranum* Honda), Watanabe 1973: III, Nakane 1986: 70.  
Japan (C. Honshu to Ryukyus), Taiwan, S. China to India.  
Kamitani, *S. Yasuda et al.* 783; Jizoutouge—Nakayama—Sugiotouge, 670m, *S. Tsugaru et al.* 17171.

*Microstegium vimineum* (Trin.) A. Camus

Ashiboso

Okamoto 1941: 108 (as *M. vimineum* A. Camus var. *imberbe* Honda), Watanabe 1973: III, Nakane 1986: 70.

Japan, Korea, China, Indonesia, India, Caucasus.

Sugou—Nanase, *S. Yasuda* 761; Makuratani, *S. Yasuda* 1190.

*Milium effusum* L.

Ibukinukabo

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu) Widespread in temperate to sub-arctic regions of N. Hemisphere.

Sugou—Akasaki, *S. Yasuda* 225; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1298; Koyomogi—Nanase, *S. Yasuda et al.* 283; Makuratani, *S. Okamoto* (1936 Sept.); Sasari—Ashiu, 600-900m, *G. Murata et al.* 48; Chiimura, *G. Koidzumi* (1922 May).

*Miscanthus sinensis* Anderss.

Susuki

Okamoto 1941: 108, Watanabe 1973: III, Nakane 1986: 69.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Sakhalin, S. Kurils, Korea, Chinese Continent, Taiwan to Indochina.

Nakayama, *S. Okamoto* (1940 Sept.); Choujidani, 600m, *G. Murata* 45601, *S. Yasuda et al.* 747; Mikunitouge, *S. Yasuda et al.* 705.

*Miscanthus tinctorius* (Steud.) Hack.

Kariyasu

Okamoto 1941: 108, Watanabe 1973: III, Nakane 1986: 67.

Japan (C. Honshu.)

Jizoutouge—Nakayama—Sugiotouge, 600m, *S. Tsugaru et al.* 16826; Mt. Mikunidake, 500-800m, *N. Kurosaki* 11937; Ashiu, *S. Okamoto* (1931 Aug.), (1936 Sept.)

*Muhlenbergia curviaristata* (Ohwi) Ohwi var. *nipponica* Ohwi

Miyamanezumigaya

Watanabe 1973: II, .

Japan (Hokkaido, N. Honshu), S. Kurils.

Kamitani, *S. Yasuda* 535; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16694.

*Muhlenbergia hakonensis* (Hack.) Makino

Tachinezumigaya

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 69.

Japan (W. Honshu, Shikoku, Kyushu), Korea (Jeju Isl.), China.

No specimen.

*Muhlenbergia huegelii* Trin.

Oonezumigaya

Okamoto 1941: 108 (as *M. Huegelii* Trin), Watanabe 1973: II, Nakane 1986: 69.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie, C. Aisa, Himalayas.

Sugou—Nanase, *S. Yasuda* 672.

*Neoaualacolepis treutleri* (Kuntze) Rausch. var. *japonica* (Hack.) Osada Hirohanokonukagusa

Okamoto 1941: 107 (as *Aulacolepis japonica* Hack.), Watanabe 1973: II, Nakane 1986: 70.

Japan (W. to C. Honshu.)

Sugou—Kaduradani, *S. Yasuda* 512; Nakanotsubo, *S. Yasuda et al.* 608; Ikenotani—Nakayama, ca. 650m, *M. Hutoh* 23991, 24062; Kamitani, *S. Yasuda* 536, *S. Okamoto* (1951 Aug.); Ashiu, *T. Yamazaki* (1958 Aug.)

*Oplismenus undulatifolius* (Arduino) Roemer et Schultes

var. *undulatifolius*

Kechizimizasa, Chizimizasa

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 69.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus). Widespread between mediterranean regions and Far East.

Sugou—Nanase, *S. Yasuda* 677; Naisugidani, *S. Okamoto* (1936 Sept.); Nakayama, *S. Okamoto* (1936 Sept.); Jizoutouge—Sugiotouge, *S. Tsugaru et al.* 16828.

var. *japonica* (Steud.) Koidz.

Kochijimizasa

Okamoto 1941: 108 (as *O. japonicus* Honda), Watanabe 1973: III, Nakane 1986: 67.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

No specimen.

*Panicum bisulcatum* Thunb.

Nukakibi

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 70.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Ussurie, Indonesia, India, Australia.

Sugou, S. *Okamoto* (1936 Sept.); Choujidani, S. *Yasuda* 787.*Paspalum thunbergii* Kunth ex Steud.

Suzumenohie

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 69.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Caucasus.

Sugou—Nanase, S. *Yasuda* 762; Choujidani, S. *Yasuda et al.* 707, 748; Jizoutouge—Nakayama—Sugiotouge, 670m, S. *Tsugaru et al.* 17173; Ashiu, S. *Okamoto* (1936 Sept.)*Pennisetum alopecuroides* (L.) Spreng.

Chikarashiba

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 67.

Japan (S. &amp; W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Philippines, Burma, Malaysia, India. Naturalized in N. America and Australia, etc.

Sugou—Kaduradani, S. *Yasuda* 720.*Phalaris arundinacea* L.

Kusayoshi

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 70.

Japan (Hokkaido, Honshu, Shikoku, Kyushu). Widespread in non-tropical regions of N. Hemisphere.

Choujidani, S. *Yasuda et al.* 472, 537, 1052; Mt. Mikunidake, 670m, S. *Tsugaru et al.* 16431.*Phragmites japonica* Steud.

Tsuruyoshi, Jishibari

Okamoto 1941: 108 (as *P. prostratus* Makino), Watanabe 1973: II, Nakane 1986: 68.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, Kurils (Kunashiri Isl.), Ussurie, Taiwan, Chinese Continent.

No specimen.

*Poa acroleuca* Steud.

Mizoichigotsunagi

Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 69.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, Sakhalin, Kurils, China.

Sugou—Akasaki, S. *Yasuda* 224; Sasari—Hino, S. *Yasuda et al.* 989.*Poa annua* L.

Suzumenokatabira

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus). Cosmopolitan.

Sugou—Haino, S. *Yasuda* 1089; Bunanokitouge—Nakayama, S. *Yasuda* 949; Choujidani, S. *Yasuda et al.* 492, 846, 849.*Poa hisauchii* Honda

Yamamizoichigotsunagi

New.

Japan (Not common; Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Sugou—Akasaki, S. *Yasuda* 224; Koyomogi—Nanase, S. *Yasuda* 284; Mt. Mikunidake, 660m, S. *Tsugaru et al.* 16268.*Poa nipponica* Koidz.

Ooichigotsunagi

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Sugou—Haino, S. *Yasuda* 1088; Sugou—Kaduradani, S. *Yasuda* 265, 1155; Hitsukuradani, S. *Yasuda* 1029; Mt. Mikunidake, 670m, S. *Tsugaru et al.* 16430.*Poa sphondylodes* Trin.

Ichigotsunagi

Okamoto 1941: 108 (as *P. sphondylodes* Trin. var. *strictula* Koidz., “Himeichigotsunagi, Zaratsuki-ichigotsunagi”), Watanabe 1973: II, Nakane 1986: 69.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, E. Siberia.

Kamitani, S. *Yasuda* 1003; Ashiu, S. *Yasuda* 1165.*Sacciolepis indica* (L.) Chase var. *oryzeturum* (Makino) Ohwi

Numerigusa

Okamoto 1941: 108 (as *S. oryzetora* Honda), Watanabe 1973: II, Nakane 1986: 70.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Taiwan, S. Chinese Continent, India.

Sugou, S. *Okamoto* (1936 Sept.)

- Sasa kurilensis* (Rupr.) Makino et Shibata *Chishimazasa, Nemagaritake*  
 Okamoto 1930: 30 (as *S. kuriensis* Makino et Shibata var. *Uchidai* Makino, "Nagabanemagaridake"),  
 Okamoto 1941: 87 (as *S. kuriensis* Makino et Shibata var. *Uchidai* Makino, "Nagabanemagaridake"),  
 Watanabe 1973: II (including "Nagabanemagaridake"), Nakane 1986: 66.  
 Japan (Hokkaido, Honshu [the Japan-Sea side]), Kurils, Sakhalin, N. Korea (and Ullung Isl.)  
 Choujidani, G. Murata 45604; Ashiu, Z. Tashiro (1933 May), S. Okamoto (1938 May), (1939 Apr.)
- Sasa palmata* (Bean) Nakai *Chimakizasa*  
 Okamoto 1941: 87 (as *S. tectorius* Makino, "Yanefukizasa"), Nakane 1986: 66 (as "Satochimaki"  
 and "Yanefukizasa").  
 Japan (Hokkaido, Honshu [the Japan Sea side], Shikoku, Kyushu), Korea (Jeju Isl.), S. Kurils, S.  
 Sakhalin.  
 Makuratani, S. Yasuda (1992 May).
- Sasa Tsuboiana* Makino *Amagizasa, Ibukizasa*  
 Okamoto 1941: 87.  
 Japan (Honshu [east to Kanto Distr.], Shikoku.)  
 Choujidani, 600-800m, S. Ueda et al. 536; Sasari—Hacchourindou, 450-600m, S. Mimoro et al.  
 10371; Ashiu, S. Okamoto (1927 Jun.)
- Setaria choudrachne* (Steud.) Honda *Inuawa*  
 Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 68.  
 Japan (Honshu, Shikoku, Kyushu), Korea (Jeju Isl.), S. China.  
 Sugou, S. Okamoto (1936 Sept.), S. Yasuda 786; Hitsukuradani, S. Yasuda 1186.
- Setaria faberi* Herrm. *Akinoenokorogusa*  
 New.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Ussurie, Sakhalin, Korea, China.  
 Sugou, S. Okamoto (1940 Sept.), S. Yasuda 785; Ashiu, S. Okamoto (1951 Aug.)
- Setaria glauca* (L.) Beauv. *Kin'enokoro*  
 Okamoto 1941: 108 (as *S. lutescens* Hubb. var. *genuina* Honda), Watanabe 1973: II, Nakane 1986:  
 68.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus). Widespread in the temperate to subtropical  
 regions of the world.  
 No specimen.
- Setaria viridis* (L.) Beauv. *Enokorogusa*  
 Okamoto 1941: 108 (as *S. viridis* Beauv. var. *genuina* Honda), Watanabe 1973: II, Nakane 1986:  
 68.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus). Widespread in the temperate to warm-  
 temperate regions of the world.  
 Sugou, T. Ohtomo 129 (Herb. Ashiu).
- Spodiopogon cotulifer* (Thunb.) Hack. *Aburasusuki, Jougaya*  
 Okamoto 1941: 107 (as *Eccoilopus cotulifer* A. Camus), Watanabe 1973: III, Nakane 1986: 67.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, Chinese Continent, Taiwan, India.  
 Choujidani, S. Yasuda 746.
- Trisetum bifidum* (Thunb.) Ohwi *Kanitsurigusa*  
 Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 69.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, Chinese Continent, Taiwan.  
 Sugou—Nanase, S. Yasuda et al. 282, 1044, 1156, 1187; Choujidani, S. Yasuda 1053.
- Zoysia japonica* Steud. *Shiba*  
 Okamoto 1941: 108, Watanabe 1973: II, Nakane 1986: 68.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.  
 Choujidani, S. Yasuda 491.

**Iridaceae***Iris gracilipes* A. Gray*Himeshaga*

Okamoto 1941: 112, Watanabe 1973: III, Nakane 1986: 57.  
 Japan (S.W. Hokkaido, Honshu, Shikoku, N. Kyushu.)  
 Indicated as a vulnerable species by Red Data Book (1989).  
 Tsubotani—Ootani, *N. Yamanaka* 3150; Chiimura, *G. Koidzumi* (1922 May).

*Iris japonica* Thunb.

Shaga

Okamoto 1941: 112, Watanabe 1973: III, Nakane 1986: 57.  
 Japan (Honshu, Shikoku, Kyushu), China.  
 Haino, *S. Yasuda* 1086; Hitsukuradani, *S. Yasuda* 392.

*Iris sanguinea* Hornem.

Ayame

Okamoto 1941: 112 (as *I. Nertchinskia* Lodd and *I. Nertchinskia* Lodd f. *albiflora* Honda, "Shiroayame"), Watanabe 1973: III, Nakane 1986: 57.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, E. Siberia.  
 Kamitani, *M. Tagawa* 2097.

**Juncaceae***Juncus effusus* L. var. *decipiens* Buchen.*I. Igusa*

Okamoto 1941: 110 (as *J. decipiens* Nakai), Watanabe 1973: III, Nakane 1986: 65.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), E. Asia, N. America.  
 Choujidani, ca. 600m, *H. Takahashi* 925; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16424.

*Juncus leschenaultii* Gay

Kougaizekishou

Okamoto 1941: 110 (including *J. diastrophanthus* Buch, "Hirohanokogaizekisho"), Watanabe 1973: III, Nakane 1986: 65.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, India, Himalaya, E. Siberia, Kamchatka.  
 Sugou, *S. Okamoto* (1951 Aug.); Sugiotouge, *S. Yasuda et al.* 609; Shimodani, *S. Yasuda et al.* 589; Sasari—Hacchourindou, 450-600m, *S. Mimoro* 10397.

*Luzula capitata* (Miq.) Miq.

Suzumenoyari, Suzumenohie

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 65.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Kurils, Sakhalin, E. Siberia, Kamchatka.  
 Sugou—Haino, *S. Yasuda* 1084; Choujidani, *S. Yasuda et al.* 1006; Ashiu, *S. Okamoto* (1936 May).

*Luzula multiflora* Lejeune

Yamasuzumenohie

Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 65.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.) Widespread in the temperate regions of N. Hemisphere, and Australia.  
 Koyomogi—Nanase, *S. Yasuda et al.* 264; Chiimura, *G. Koidzumi* (1922 May).

*Luzula plumosa* E. Meyer var. *macrocarpa* (Buchen.) Ohwi

Nukaboshisou

Okamoto 1941: 110 (as *L. plumosa* E. Mey.), Watanabe 1973: III, Nakane 1986: 65.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Amur, Kurils, Sakhalin, India.  
 Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1255, *S. Yasuda* 80, 111, 1085; Kamitani, *S. Yasuda et al.* 150, 1007; Chiimura, *G. Koidzumi* (1922 May).

**Liliaceae***Cardiocrinum cordatum* (Thunb.) Makino

Ubayuri

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.  
 Japan (Honshu [east to Miyagi and Ishikawa], Shikoku, Kyushu.)  
 Akasaki, *S. Yasuda* 691.

*Chionographis japonica* Maxim.

Shiraitosou

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.  
 Japan (Honshu [north to Akita], Shikoku, Kyushu), S. Korea.  
 Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1278, *S. Yasuda* 233, 344; Iwatani, *Y. Araki* 554; Choujidani, *H. Takahashi* 930; Mikunitouge, *S. Yasuda* 470; Ashiu, *Y. Takeishi et al.* 4162.

- Disporum sessile* Don Houchakusou  
 Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Sakhalin.  
 Hitsukuradani, *S. Yasuda* 169; Kamitani, *M. Ito* 3585; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16274; Sasari, 600m, *Y. Inamasu* 44.
- Disporum smilacinum* A. Gray Chigoyuri  
 Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China.  
 Kaduradani, *S. Yasuda* 113; Choujidani—Mikunitouge, 600-800m, *K. Ueda et al.* 531; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16275; Ashiu, *G. Murata* 7074, 400m, *Y. Inamasu* 7.
- Heloniopsis orientalis* (Thunb.) C. Tanaka Shoujoubakama  
 Okamoto 1941: 111 (as *H. japonica* Maxim.), Watanabe 1973: III, Nakane 1986: 59.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, Sakhalin.  
 Sugou—Koyomogi, *S. Yasuda* 803, 804.
- Hemerocallis dumortieri* Morr. var. *esculenta* (Koidz.) Kitam. Zenteika, Nikkoukisuge  
 Watanabe 1973: III, 59 - 61, Nakane 1986: 58.  
 Japan (Hokkaido, N. & C. Honshu), S. Kurils, Sakhalin.  
 Rare on the west of Mt. Ibuki. Ashiu is the western limit of the distribution.  
 Nakanotsubo, *K. Yoshimura* (1964 May), *N. Yamanaka* 3332.
- Hemerocallis fulva* L. var. *kwanso* Regel Yabukanzou, Onikanzou  
 Watanabe 1973: III, Nakane 1986: 58.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
 No specimen.
- Hosta longipes* (Franch. et Sav.) Matsum. Iwagiboushi  
 Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.  
 Japan (Honshu [Kanto and Tokai Distr.], Kyushu.)  
 Sannotani, *S. Okamoto* (1931 Aug.); Shimodani, *S. Okamoto* (1940 Sept.); Ashiu, *G. Nakai* 3337, 5606.
- Hosta sieboldiana* (Lodd.) Engler Oobagiboushi, Tougiboushi  
 Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.  
 Japan (S.E. Hokkaido, Honshu, Shikoku, Kyushu.)  
 Haino, *S. Okamoto* (1937 Jul.); Naisugidani, *S. Okamoto* (1935 Jul.), (1936 Sept.), (1937 Jul.); Sukendani, *S. Yasuda et al.* 469, 587; Choujidani or Shimodani, ca. 500m, *H. Takahashi* 840, 849; Choujidani, *M. Hotta* 15701; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Ashiu, *G. Nakai* 5616.
- Lilium japonicum* Thunb. Sasayuri, Sayuri  
 Okamoto 1941: 111 (as *L. Makinoi* Koidz.), Watanabe 1973: III, Nakane 1986: 58.  
 Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu.)  
 Sugou—Hitsukuradani, *S. Yasuda* 419.
- Lilium lancifolium* Thunb. Oniyuri  
 Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
 No specimen.
- Lilium leichtlinii* Hook. fil. var. *maximowiczii* (Regel) Baker Kooniyuri  
 New.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Ussurie.  
 Nakanotsubo, *S. Yasuda et al.* 606.
- Metanarthecium luteoviride* Maxim. Nogiran  
 Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils.  
 Sugou, *S. Okamoto* (1935 Jul.); Kaduradani, *S. Okamoto* (1951 Aug.); Hitsukuradani, *S. Yasuda et al.* 564; Mikunitouge, *M. Tagawa* 2094; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16427.

*Paris tetraphylla* A. Gray

Tsukubanesou

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Hitsukuradani, *S. Yasuda* 174; Bunanokitouge—Nakayama, *S. Yasuda* 946; Keyakizaka, *S. Okamoto* (1957 Jul.); Tsubodani—Ootani, *N. Yamanaka* 3152; Choujidani—Mikunitouge, ca. 600-800m, *K. Ueda et al.* 534; Chiimura, *G. Koidzumi* (1922 May).*Polygonatum falcatum* A. Gray

Narukoyuri

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.

Chiimura, *G. Koidzumi* (1922 May).*Polygonatum lasianthum* Maxim.

Miyamanarukoyuri

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Sugou, *S. Yasuda et al.* (1993 May); Mt. Mikunidake, 500-900m, *N. Kurosaki* 11914; Chiimura, *G. Koidzumi* (1922 May).*Polygonatum macranthum* (Makino) Koidz.

Oonarukoyuri

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Hitsukuradani, *S. Yasuda et al.* 420, 1026; Shimodani, *S. Okamoto* (1949 Jul.); Kamitani, *M. Ito* 3590; Choujidani, 600m, *M. Hotta* 15700; Makuratani, *S. Yasuda et al.* 701; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *S. Okamoto* (1936 Jul.)*Scilla scilloides* (Lindl.) Druce

Tsurubo

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Ussurie.

Naisugidani, *S. Okamoto* (1940 Sept.); Choujidani, *S. Yasuda et al.* 780.*Smilacina japonica* A. Gray

Yukizasa

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 58.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie, Amur.

Koyomogi—Nanase, *S. Yasuda et al.* 275; Bunanokitouge—Nakayama, *S. Yasuda* 947; Kamitani, *S. Yasuda* 367; Keyakizaka, *S. Okamoto* (1938 May).*Smilax china* L.

Sarutoriibara

Okamoto 1930: 30, Okamoto 1941: 87, Watanabe 1973: III, Nakane 1986: 59.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Indochina, Philippines.

Akasaki, *H. Takahashi et al.* 21; Mikunitouge, *S. Yasuda* 255.*Smilax nipponica* Miq.

Tachishiode

Watanabe 1973: III, Nakane 1986: 59.

Japan (Honshu, Shikoku, Kyushu), Korea, China, Taiwan.

Sasari, *S. Yasuda et al.* 987; Chiimura, *G. Koidzumi* (1922 May).*Smilax riparia* A. DC. var. *ussuriensis* (Regel) Hara et T. Koyama

Shiode

Okamoto 1941: 111 (as *S. nipponica* Miq. var. *typica* Makino), Watanabe 1973: III, Nakane 1986: 58.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, Ussurie.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1277, *S. Yasuda* 1087; Naisugidani, *M. Tagawa* (1933 Jul.); Nodabata, *S. Yasuda et al.* 1087; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16691, 680m, 17164; Ashiu, *S. Terabayashi et al.* 2458.*Tricyrtis affinis* Makino

Yamajinohototogisu

Okamoto 1941: 111 (as *T. japonica* Miq.), Watanabe 1973: III, Nakane 1986: 59.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu.)

Akasaki, *S. Okamoto* (1936 Sept.), ca. 400m, *H. Takahashi et al.* 19, *S. Yasuda* 692; Naisugidani, *S. Okamoto* (1936 Sept.), (1940 Sept.); Hitsukuradani, *S. Okamoto* (1936 Sept.), *S. Yasuda et al.* 553; Mt. Mikunidake, *N. Kurosaki* 11916; Ashiu, *G. Nakai* 5597.



*Trillium smallii* Maxim.

Enreisou

Okamoto 1941: 111, Watanabe 1973: III, Nakane 1986: 59.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin.

Sugou—Akasaki, *S. Yasuda* 1; Kaduradani, 500m, *K. Tsuchiya* 77; Nanase, *S. Okamoto* (1937 Apr.);Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 522; Choujidani, *K. Iwatsuki* 701; Jizoutouge—Nodabata, *S. Yasuda* 41; Mt. Mikunidake, 720m, *S. Tsugaru et al.* 16273; Sasari, *Y. Inamasu* 35;Ashiu, ca. 600m, *H. Takahashi* 921.*Veratrum album* L. subsp. *oxysepalum* Hulten

Baikaisou

Okamoto 1941: 111 (as *V. grandiflorum* Loes. f), Watanabe 1973: III, Nakane 1986: 58.

Japan (Hokkaido, N.C. Honshu), Kurils, Korea, N.E. China, Ussurie, Kamchatka.

Shimodani, *S. Okamoto* (1941 Jul.), *M. Tagawa* 2098 (1933 Jul.); Sukendani, *S. Yasuda et al.* 1031;Kamitani, *S. Yasuda* 482; Choujidani, *S. Okamoto* (1941 Jul.); Ashiu, *G. Nakai* 3321.**Orchidaceae***Amitostigma keiskei* (Maxim.) Schltr.

Iwachidori

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.

Japan (Honshu [Chubu and Kinki Distr.], Shikoku.)

Indicated as a vulnerable species by Red Data Book (1989).

No specimen.

*Calanthe discolor* Lindl.

Ebine

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea (Jeju Isl.)

Indicated as a vulnerable species by Red Data Book (1989).

No specimen.

*Calanthe reflexa* Maxim.

Natsuebine

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 60.

Japan (Honshu, Shikoku, Kyushu), Korea (Jeju Isl.), S. China, Taiwan.

Indicated as a vulnerable species by Red Data Book (1989).

Naisugidani, *S. Okamoto* (1940 Sept.); Hitsukuradani, *S. Okamoto* (1936 Sept.), *S. Yasuda* 696; Ashiu,*G. Nakai* 5606.*Calanthe tricarinata* Lindl.

Sarumen'ebine

Okamoto 1941: 112 (as *C. torifera* Schlech), Watanabe 1973: IV, Nakane 1986: 61.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Taiwan, Himalaya.

Indicated as a vulnerable species by Red Data Book (1989).

Ashiu, *S. Yasuda* 277.*Cephalanthera falcata* (Thunb.) Blume

Kinran

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Kamitani, *S. Yasuda* 365.*Cremastra appendiculata* (D. Don) Makino

Saihairan

Watanabe 1973: IV, Nakane 1986: 60.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, S. Korea, S. Sakhalin, China, Taiwan, Himalaya.

Sugou—Kadura, *S. Okamoto* (1951 Jun.)*Cremastra unguiculata* (Finet) Finet

Tokenran

Watanabe 1973: IV, Nakane 1986: 60.

Japan (Hokkaido, Honshu, Shikoku), Korea (Jeju Isl.)

Hitsukuradani, *S. Yasuda* 393; Jizoutouge—Choujidani, 700-750m, *S. Fujii et al.* 2461; Mt.Mikunidake, 670m, *S. Tsugaru et al.* 16297.*Cymbidium goeringii* (Reichb. fil.) Reichb. fil.

Shunran

Watanabe 1973: IV, Nakane 1986: 61.

Japan (Hokkaido [Okushiri Isl.], Honshu, Shikoku, Kyushu), China.

Naisugidani, *S. Okamoto* (1937 May); Mikunitouge, *S. Yasuda* 261.

- Cypripedium japonicum* Thunb. Kumagaisou  
 Watanabe 1973: XI, Nakane 1986: 60.  
 Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
 Indicated as a vulnerable species by Red Data Book (1989).  
 No specimen.
- Epipactis thunbergii* A. Gray Kakiran  
 Okamoto 1941: 112 (as *E. longifolia* Blume), Watanabe 1973: IV, Nakane 1986: 61.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Ussurie.  
 Choujidani, S. Okamoto (1957 Jul.), S. Yasuda et al. 485, 515; Chiimura, G. Nakai (1921 Aug.)
- Galeola septentrionalis* Reichb. fil. Tsuchiakebi  
 Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 60.  
 Japan (Hokkaido [north to Sapporo], Honshu, Shikoku, Kyushu.)  
 Bunanokitouge, S. Yasuda 1095.
- Gastrodia elata* Blume Oninoyagara, Tenma  
 Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 60.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, China, Taiwan Amur. Ussurie.  
 Nakayama—Iwatani, S. Yasuda 471.
- Goodyera foliosa* (Lindl.) Benth. var. *maximowicziana* (Makino) F. Maek. *Akebonoshusuran*  
 Okamoto 1941: 112 (as *G. Maximowicziana* Makino), Watanabe 1973: IV, Nakane 1986: 60.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Amami Ohshima Isl.), Korea, S. Kurils.  
 Nakayama, N. Yamanaka 3171; Jizoutouge—Nakayama—Sugiotouge, 680m, S. Tsugaru et al. 17166;  
 Makuratani, S. Yasuda 781; Ashiu, S. Okamoto (1940 Sept.)
- Goodyera pendula* Maxim. Tsurishusuran  
 Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 60.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu.)  
 No specimen.
- Goodyera schlechtendaliana* Reichb. fil. Miyamauzura  
 Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 60.  
 Japan (C. Hokkaido, Honshu, Shikoku, Kyushu, Amami Ohshima Isl.), S. Kurils, Korea, China.  
 Sugou—Kaduradani, S. Yasuda 719; Keyakizaka, S. Okamoto (1940 Sept.)
- Gymnadenia camtschatica* (Cham.) Miyabe et Kudo Nobinechidori  
 Okamoto 1941: 112 (as *Neolindleya camtschatica* Nevski), Watanabe 1973: IV, Nakane 1986: 60.  
 Japan (Hokkaido, N.C. Honshu, Shikoku, Kyushu), Kurils, Korea, Sakhalin, Kamchatka.  
 Iwatani, S. Okamoto (1938 May), N. Yamanaka 3323.
- Liparis krameri* Franch. et Sav. Jigabachisou  
 Okamoto 1941: 112 (as *L. Kurameri* Fr. et Sav. var. *atronervata* Makino), Watanabe 1973: IV,  
 Nakane 1986: 61.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.  
 Nanase, S. Okamoto (1932 Jul.); Ashiu, N. Yamanaka (1984 Jun.)
- Liparis kumokiri* F. Maek. Kumokirisou  
 Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea.  
 Nanase, S. Okamoto (1932 Jul.); Ashiu, ca. 300-400m, S. Mitsuta 12263.
- Orchis chidori* (Makino) Schltr. Hinachidori  
 Watanabe 1973: IV, Nakane 1986: 61.  
 Japan (Honshu [east to Chubu Distr.], Shikoku.)  
 Indicated as a vulnerable species by Red Data Book (1989).  
 Iwatani, M. Tagawa (1934 Jun.); Nakayama, S. Okamoto (1940 Aug.); Ashiu, G. Nakai 3349, S.  
 Okamoto (1957 Jul.)
- Oreorchis patens* (Lindl.) Lindl. Kokeiran  
 Okamoto 1941: 112 (as *O. patens* Lindl. f. *gracilis* Makino, "Himekeiran"), Watanabe 1973: IV,  
 Nakane 1986: 61.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin, Kamchatka, Korea Amur, Ussurie, China.

Sugou—Akasaki, *S. Yasuda* 222; Naisugidani, *S. Okamoto* (1938 May); Choujidani, ca. 600m, *H. Takahashi* 915; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16277; Sasari, 400m, *Y. Inamasu* 47; Chiimura, *G. Koidzumi* (1922 May).

*Platanthera florenti* Franch. et Sav.

*Jinbaisou*

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 60.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu.)

Hitsukuradani, *S. Okamoto* (1936 Sept.); Mondoridani, *N. Yamanaka* 3207.

*Platanthera hologlottis* Maxim.

*Mizuchidori*

Watanabe 1973: IV, Nakane 1986: 60.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Siberia, Amur, Ussurie.

Kamitani, *S. Okamoto* (1935 Jul.); Choujidani, *G. Isa* (1966 Jul.), *S. Yasuda et al.* 486; Ashiu, *S. Okamoto* (1957 Jul.)

*Platanthera japonica* (Thunb.) Lindl.

*Tsuresagisou*

New.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), China.

Nakayama, *S. Okamoto* (1936 Jul.)

*Platanthera mandarinorum* Reichb. fil. var. *brachycentron* (Franch. et Sav.) Koidz.

*Yamasagisou*

Okamoto 1941: 112 (as *P. mandarinorum* Reichb. f.), Watanabe 1973: IV, Nakane 1986: 61.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Sakhalin.

No specimen.

*Platanthera minor* (Miq.) Reichb. fil.

*Noyamatombo, Oobanotonbosou*

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.

Japan (Honshu, Shikoku, Kyushu.)

Kaduradani, *S. Yasuda* 513; Mikunitouge, *M. Tagawa* (1933 Jul.); Ashiu, *G. Koidzumi* (1921 Aug.)

*Platanthera sachalinensis* Fr. Schm.

*Ooyamasagisou*

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin.

Kaduradani, *S. Okamoto* (1931 Aug.)

*Platanthera tipuloides* Lindl. var. *nipponica* (Makino) Ohwi

*Kobanotonbosou*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Choujidani, *S. Yasuda et al.* 1054.

*Pogonia japonica* Reichb. fil.

*Tokisou*

Nakane 1986: 60.

Japan (Hokkaido, Honshu, rare in Shikoku and Kyushu), S. Kurils, Korea, China, Amur, Ussurie.

Kamitani, *S. Okamoto* (1935 Jul.); Choujidani, *S. Okamoto*, *S. Yasuda et al.* 484; Ashiu, *G. Nakai* 3336.

*Spiranthes sinensis* (Pers.) Ames var. *amoena* (M. Bieberson) Hara *Nejibana, Mojizuri*

Okamoto 1941: 112 (as *S. amoena* Spreng), Watanabe 1973: IV, Nakane 1986: 61.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Kurils, Korea, N.E. & C. China, Sakhalin, Ussurie, Himalaya.

Shimodani, *S. Yasuda* 591.

*Tipularia japonica* Matsum.

*Hitotsubokuro*

New.

Japan (Honshu, Shikoku, Kyushu), S. Korea.

Ootani—Nakayama, *T. Fukuhara* (1992 Aug.); Kamitani, *S. Yasuda et al.* 1191.

*Yoania japonica* Maxim.

*Shoukiran*

Okamoto 1941: 112, Watanabe 1973: IV, Nakane 1986: 61.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu.)  
Sukendani, *S. Yasuda et al.* 276; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16299; Ashiu, *A. Nitta* 11929.

**Pontederiaceae**

*Monochoria vaginalis* (Burm. fil.) Presl. *Konagi*  
Okamoto 1941: 110, Watanabe 1973: III, Nakane 1986: 57.  
Japan (Honshu, Shikoku, Kyushu, Ryukyu), Korea, China, Taiwan, Malaysia, India, Ussurie.  
Sugou, *S. Okamoto* (1936 Sept.)

**Sparganiaceae**

*Sparganium erectum* L. *Mikuri*  
Watanabe 1973: II, Nakane 1986: 57.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of Asia, Europe and N. Africa.  
Indicated as a vulnerable species by Red Data Book (1989).  
No specimen. (There is a specimen taken in Kutsuki, near Jizoutouge.)

**Typhaceae**

*Typha latifolia* L. *Gama*  
Okamoto 1941: 106, Watanabe 1973: II, Nakane 1986: 57.  
Japan (Hokkaido, Honshu, Shikoku, N. Kyushu.) Widespread from the temperate to the tropical regions of N. Hemisphere and Australia.  
No specimen.

**Zingiberaceae**

*Zingiber mioga* (Thunb.) Roscoe *Myouga*  
Okamoto 1941: 112, Watanabe 1973: III, Nakane 1986: 57.  
Japan (Honshu, Shikoku, Kyushu.)  
Hitsukuradani, *S. Yasuda* 1025.

Angiosperms (Dicotyledons)

**Acanthaceae**

*Justicia procumbens* L. *Kitsunenomago*  
Okamoto 1941: 103, Watanabe 1973: IX (as "Kitsunenogoma" in "kitsunenogoma-ka"), Nakane 1986: 50.  
Japan (Honshu, Shikoku, Kyushu), Korea, N.C. China, India, Malaysia, Indochina, Australia.  
No specimen.

*Peristrophe japonica* (Thunb.) Bremek. *Hagurosou*  
Okamoto 1941: 103 (as *Dicliptera Japonica* Makino), Watanabe 1973: IX (in "Kitsunenogoma-ka"), Nakane 1986: 50.  
Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), S. Korea, C. China, Taiwan.  
Sugou—Akasaki, *S. Yasuda* 617.

**Aceraceae**

*Acer amoenum* Carr. *Oomomiji*  
var. *amoenum*  
Okamoto 1930: 63 (as *A. palmatum* Thunb., "Momiji"), Okamoto 1941: 63 (as *A. euseptemlobum* Koidz.), Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17 (as *A. palmatum* subsp. *amoenum* (Carr.) Hara).  
Japan (S. & C. Hokkaido, Honshu [the Pacific side north to Aomori, and the Japan-Sea north to Fukui], Shikoku, Kyushu.)  
See the note of *Acer amoenum* var. *matsumurae*.  
Haino—Koyomogi, *N. Ymanaka* 3301; Ooyomogi, *S. Okamoto* (1933 Jul.); Fukamitouge, 600m, *Y.*

*Tateishi et al.* 4201; Shimodani, *N. Ymanaka* 3335; Choujidani, 630m, *K. Matsui* 15; Makuradani, *S. Okamoto* (1930 Jul.); Sasari—Haino, *S. Yasuda et al.* 968; Ashiu, *G. Nakai* 5599, *S. Okamoto* (1931 Aug. 1936 May), ca. 600m, *N. Naruhashi* 1120.

var. *matsumurae* (Koidz.) Ogata

*Yamamomiji*

Nakane 1986: 27.

Japan (Honshu [the Japan-Sea side that lacks in *A. amoenum*].)

The specimens in Ashiu are not typical but with intermediate forms (with an asterisk) between var. *amoenum* and var. *matsumurae*. Considered with their distribution maps, Ashiu is likely a transitional place between their distribution.

Kamitani, *S. Okamoto* (1930 Jul.)\*; Nodabata, *Y. Araki* 543\*.

*Acer carpinifolium* Siebold et Zucc.

*Chidorinoki, Yamashibakaede*

Okamoto 1930: 67, Okamoto 1941: 62, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 16.

Japan (Honshu [north to Iwate], Shikoku, Kyushu.)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1266; Kaduradani, *M. Tagawa* 2052; Haino, *S. Okamoto* (1934 May); Ootani, *S. Okamoto* 11863; Nakayama-Iwatani, *Y. Araki* 548; Hitsukuradani, *S. Yasuda* 83, 92; Sugou—Nakayama, *S. Yasuda* 197; Sasaritouge, *G. Murata* 7028; Sasari—Touta, *S. Fujii* 57; Chiimura, *S. Okamoto* 15105; Shuuzan—Ashiu, *S. Tanaka* (1932 Jul.); Kuroda—Ashiu, *Y. Araki* 6938.

*Acer cissifolium* (Siebold et Zucc.) K. Koch

*Mitsudekaede*

Okamoto 1941: 62, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 16.

Japan (S. Hokkaido, Honshu, Shikoku, C. Kyushu.)

No specimen.

*Acer crataegifolium* Siebold et Zucc.

*Urikaede*

Okamoto 1930: 65, Okamoto 1941: 62, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 16.

Japan (Honshu [north to Fukushima, rare in Hokuiku Distr.], Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 880; Sugou—Kaduradani, *S. Yasuda* 125, 765; Akasaki, *N. Yamanaka* 3285; Sasari, 400m, *Y. Inamasu* 29.

*Acer diabolicum* Blume ex Koch

*Kajikaede*

Yamanaka 1991: 17.

Japan (Honshu [north to Miyagi], Shikoku, Kyushu)

Nakanotsubo, *Mitsueda* 374 (Herb. Ashiu); Nodabata, *M. Andoh* 644 (Herb. Ashiu).

*Acer japonica* Thunb.

*Hauchiwakaede*

Okamoto 1930: 64 (as *A. japonicum* Thunb. var. *typicum* Graf v. Schw.), Okamoto 1941: 63, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17.

Japan (Hokkaido, Honshu.)

Hitsukuradani, *N. Yamanaka* 3294, *S. Yasuda* 184; Shimodani, *S. Yasuda* 567.

*Acer micranthum* Siebold et Zucc.

*Kominekaede*

Okamoto 1930: 64, Okamoto 1941: 63, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1296; Sugou—Koyomogi, ca. 400m, *H. Nagamasu* 2066, *S. Yasuda et al.* 967; Shimodani, *M. Tagawa* 1755, *Y. Araki* 450; Bunanokitouge—Nakayama, *S. Yasuda* 930; Kamitani, *S. Yasuda* 374; Choujidani, 700m, *M. Hotta* 14871, *H. Takahashi* 917; Makuratani—Mikunitouge, *S. Yasuda* 296, 323; Jizoutouge—Choujidani or Mikunidake, 700-750m, *S. Fujii et al.* 2464; Sasari—Ashiu, 600-900m, *G. Murata* 30; Ashiu, *A. Nitta* 11934, *G. Nakai* 5594.

*Acer mono* Maxim.

var. *ambiguum* (Pax) Rehder

*Oniitaya*

New.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou, *S. Okamoto* (1937 May); Koyomogi, *S. Okamoto* 11864; Nanase, *Y. Araki* 615; Naisugidani, *S. Yasuda* 875.

var. *connivens* (Nichols) Hara  
New.

*Urageenkoukaede*

Japan (Honshu [from Iwate to Kinki Distr., and Okayama, not grow from Akita to Niigata], Shikoku, C. Kyushu.)

Naisugidani, *M. Tagawa* 2082, *Y. Araki* 490; Makuratani, 650m, *K. Matsui* 47; Ashiu, *S. Okamoto* (1931 Aug.)

var. *marmoratum* (Nichols.) Hara form. *dissectum* (Wesmael) Rehder *Itayakaede*

Okamoto 1930: 66 (as *A. pictum* Thunb. var. *typicum* Graf v. Schw. subv. *eupictum* Pax. and *A. pictum* Thunb. var. *dissectum* Wesmael., "Asahikaede"), Okamoto 1941: 64 (as *A. pictum* Thunb. var. *eupictum* Nakai and *A. mono* Maxim. var. *dissectum* Honda, "Asahikaede"), Watanabe 1973: VII, Nakane 1986: 27 (including "Asahikaede"), Yamanaka 1991: 17.

Japan (Honshu [from Iwate to Hyogo, not grow from Akita to Toyama], Shikoku, Kyushu.)  
No specimen.

var. *mayri* (Schwerin) Sugimoto

*Akaitaya, Beniitaya*

Okamoto 1930: 66 (as *A. pictum* Thunb. var. *typicum* Graf. v. Schw. subv. *Mayri* Koidz.), Okamoto 1941: 63 (as *A. Mayrii* Graf. v. Schw.), Watanabe 1973: VII, Yamanaka 1991: 17 (*A. mono* subsp. *Mayrii* (Schwerin) Kitamura).

Japan (Hokkaido, Honshu [the Japan-Sea side from Tohoku Distr. to Shimane.] )

Nanase, *M. Tagawa* 2083; Kamitani, *M. Tagawa* 2084; Shimodani, *M. Tagawa* 2081, *Y. Araki* 443; Nakayama, *Y. Araki* 676; Choujidani—Mikunitouge, *A. Nitta* 12542; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 504; Ashiu, *Z. Tashiro* (1933 May), *S. Okamoto* (1956 Jul.)

*Acer nikoense* Maxim.

*Megusurinoki*

Okamoto 1930: 67, Okamoto 1941: 64, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 16.

Japan (Honshu [north to Miyagi and Yamagata, not common in Hokuriku Distr. and east to Kinki Distr.], Shikoku, Kyushu.)

Naisugitani, *S. Yasuda et al.* 874.

*Acer nipponicum* Hara

*Tetsukaede*

Okamoto 1930: 65 (as *A. parviflorum* Fr. et Sav.), Okamoto 1941: 64, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17.

Japan (Honshu [north to Iwate and Akita], Shikoku, Kyushu.)

Sugou—Kaduragoya, ca. 400m., *M. Ito* 1299; Akasaki, *S. Okamoto* (1936 Sept.); Shimodani, *S. Okamoto* (1940 Jun.), *S. Yasuda* 475; Ashiu, *G. Nakai* 3342, *G. Koidzumi* (1922 May), *N. Naruhashi* (1971 Aug.)

*Acer palmatum* Thunb.

*Irohamomiji*

Yamanaka 1991: 17.

Japan (Honshu [the Japan-Sea side north to Fukui, and the Pacific side north to Fukushima.]), Korea, China.

No specimen.

*Acer rufinerve* Siebold et Zucc.

*Urihadakaede*

Okamoto 1930: 65, Okamoto 1941: 65, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17.

Japan (Honshu, Shikoku, Kyushu.)

Shimodani, *S. Yasuda* 929; Kamitani, *M. Ito* 3588, *S. Yasuda* 140; Makuratani, 650m, *K. Matsui* 43; Choujidani—Hitsuduradani and Nayasukedani (= Naisugidani)—Ashiu, *A. Nitta* 12583; Choujidani—Mikunitouge, ca. 600-800m, *K. Ueda* 546; Ashiu, *G. Murata* 7053, (1954 May), *S. Okamoto* (1956 Jul.), (1936 May), *G. Nakai* 3370.

*Acer sieboldianum* Miq.

*Kohauchiwakaede*

Okamoto 1930: 64 (*A. Sieboldianum* Miq. var. *typicum* Maxim. subv. *microphyllum* Koidz.), Okamoto 1941: 65, Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Hitsukuradani, *S. Yasuda* 181; Jizoutouge, 680m, *K. Matsui* 16; Naisugitani, *N. Yamanaka* 3334; Sasari, *S. Yasuda et al.* 970, 800m; Sasari—Haino, *M. Umebayashi* 1048; Sasari—Ashiu, 600-900m, *G. Murata et al.* 35; Ashiu, *Y. Tateishi et al.* 4197, *S. Okamoto* (1936 Sept.)

*Acer tenuifolium* (Koidz.) Koidz.

*Hinauchiwakaede*

Okamoto 1930: 64, Okamoto 1941: 63 (as *A. dissectum* Thunb. var. *tenuifolium* Koidz.), Watanabe 1973: VII, Nakane 1986: 27, Yamanaka 1991: 17.

Japan (Honshu [north to S. Fukushima], Shikoku, Kyushu)

Koyomogi, *S. Okamoto* (1936 Oct.); Nanase, *M. Tagawa* 2080, *S. Okamoto* (1933 May).

### Actinidiaceae

*Actinidia arguta* (Siebold et Zucc.) Planch. ex Miq.

*Sarunashi*

Okamoto 1930: 71 (as *A. callosa* Lindl. var. *arguta* Makino), Okamoto 1941: 69, Watanabe 1973: VII, Nakane 1986: 35, Yamanaka 1991: 20.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Ussurie, Sakhalin.

Nakayama, *S. Yasuda et al.* 1046; Ashiu, *G. Nakai* 3314.

*Actinidia polygama* (Siebold et Zucc.) Planch. ex Maxim.

*Matatabi*

Okamoto 1930: 71, Okamoto 1941: 69 (as *A. repanda* Honda), Watanabe 1973: VII, Nakane 1986: 35, Yamanaka 1991: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, N.E. China, S. Ussurie, Sakhalin.

Haino, *S. Okamoto* 11874; Bunanokitouge—Nakayama, *S. Yasuda* 923; Nakayama, *S. Okamoto* (1940 Sept.); Makuratani, *S. Yasuda et al.* 516.

### Alangiaceae

*Alangium platanifolium* (Siebold et Zucc.) Harms var. *trilobum* (Miq.) Ohwi

*Urinoki*

Okamoto 1930: 74 (as *A. platanifolium* Harms. var. *macrophyllum* Wang.), Okamoto 1941: 71 (as *Marlea macrophylla* S. et Z. var. *trilobata* Nakai), Watanabe 1973: VIII, Nakane 1986: 17, Yamanaka 1991: 21.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1264; Nakayama—Iwatani, *M. Tagawa* (1933 Jul.), *S. Yasuda* 436; Sugou—Nanase, *S. Yasuda* 333; Shimodani, *T. Fukuhara* 115-1; Mt. Mikunidake, 660m, *S. Tsugaru* 16392; Choujidani, *K. Iwatsuki* 5487; Sasaritouge, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Chiimura, *G. Koidzumi* (1922 May).

### Amaranthaceae

*Achyranthes bidentata* Blume var. *japonica* Miq.

*Inokozuchi*

Okamoto 1941: 94 (*A. japonica* Nakai), Watanabe 1973: V, Nakane 1986: 15.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Nanase, *S. Yasuda* 633; Naisugidani, *S. Okamoto* (1940 Sept.); Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16801, 16802.

*Achyranthes longifolia* (Makino) Makino

*Yanaginoinokozuchi*

Watanabe 1973: XI, .

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), China, Taiwan.

No specimen.

*Amaranthus lividus* L. var. *ascedens* (Lois.) Thell.

*Inubiyu*

Okamoto 1941: 94 (as *Euxolus ascendens* Hara ), Watanabe 1973: V, Nakane 1986: 15.

Naturalized in Japan (Hokkaido, Honshu, Kyushu). Widespread many regions in Europe and Asia.

Naturalized to Japan before the Edo era. Likely to be native to Europe. Common in fields.

No specimen.

### Anacardiaceae

*Rhus ambigua* Lavall. ex Dipp.

*Tsutaaurushi*

Okamoto 1930: 59 (as *R. Toxicodendron* L. var. *vulgaris* Pursh. f. *radicans* Engl.), Okamoto 1941: 56, Watanabe 1973: VII, Yamanaka 1991: 14.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Sakhalin.

Sugou, *S. Yasuda et al.* 565; Sugou—Kaduragaya, ca. 400m, *M. Ito et al.* 1287; Sasari—Hacchourindou, 450-600m, *S. Mimoro et al.* 10386.

*Rhus javanica* L. var. *roxburghii* (DC.) Rehder et Wils.

*Nurude, Fushinoki*

Okamoto 1930: 59 (as *R. javanica* L.), Okamoto 1941: 56, Watanabe 1973: VII, Nakane 1986: 30,

Yamanaka 1991: 14 (as *R. javanica* L.).

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, W. & C. China, Taiwan, N. Indochina, Himalaya.

Choujidani, *S. Yasuda et al.* 926, 996.

*Rhus trichocarpa* Miq.

*Yamaurushi*

Okamoto 1930: 59, Okamoto 1941: 56, Watanabe 1973: VII, Nakane 1986: 30, Yamanaka 1991: 14.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China.

Kasa, *S. Yasuda* 925, 1011.

## Apocynaceae

*Trachelospermum asiaticum* (Siebold et Zucc.) Nakai

*Teikakazura*

Okamoto 1930: 86, Okamoto 1941: 82 (as *T. asiaticum* Nakai var. *intermedium* Nakai), Watanabe 1973: IX, Nakane 1986: 42, Yamanaka 1991: 26.

Japan (Honshu [north to Akita], Shikoku, Kyushu), Korea.

No specimen.

## Aquifoliaceae

*Ilex crenata* Thunb.

*Inutsuge*

Okamoto 1930: 60 (as *I. crenata* Thunb. var. *typica* Loes. f. *genuina* Loes.), Okamoto 1941: 58, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 15.

Japan (Honshu [Pacific side north to Iwate, and east to Kinki Distr.], Shikoku, Kyushu), S. Korea. Hitsukuradani, *S. Yasuda* 450; Mikunitouge—Choujidani—Sukendani, *S. Yasuda* 465; Ashiu, *G. Koidzumi* (1921 Aug.).

*Ilex geniculata* Maxim.

*Fuurin'umemodoki*

Okamoto 1930: 61, Okamoto 1941: 57, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 15.

Japan (Honshu [from the Pacific side north to Tohoku Distr. to Chugoku Distr.], Shikoku, Kyushu.) Nakayama—Iwatani, *M. Tagawa* 1751.

*Ilex leucoclada* (Maxim.) Makino

*Himemochi*

Okamoto 1930: 60, Okamoto 1941: 58, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 15.

Japan (S.W. Hokkaido, Honshu [from Tohoku Distr. to San'in Distr.])

Nakayama—Iwatani, *M. Tagawa* 1748; Hitsukuradani, *S. Yasuda et al.* 559; Kamitani, *M. Ito* 3584, *S. Yasuda et al.* 995; Makuratani, *K. Ueda* (1075 Apr.); Choujidani, *M. Hotta* 15704; Mikunitouge, *M. Tagawa* 1747, *S. Yasuda* 465; Sasari—Ashiu, *G. Murata et al.* 41; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *A. Nitta* 11945, *Y. Inamasu* 15.

*Ilex macropoda* Miq.

*Aohada*

Okamoto 1930: 61 (as *I. dubia* Trel. var. *macropoda* Loes.), Okamoto 1941: 58, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 14.

Japan (S.W. Hokkaido [and Tokachi Distr.], Honshu, Shikoku, Kyushu), Korea, S. C. China.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1286; Sugou—Nanase, *S. Yasuda* 749; Ashiu, *G. Nakai* 5610.

*Ilex pedunculosa* Miq.

*Soyogo*

Okamoto 1930: 60, Okamoto 1941: 58, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 15.

Japan (Honshu [east to Kanto Distr. and Niigata], Shikoku, Kyushu), S.C. China, Taiwan.

Sugou, *S. Yasuda et al.* 1041; Iwatani—Nanase, *M. Tagawa* 1738; Mikunitouge, *S. Yasuda* 463.

*Ilex sugeroki* Maxim.

var. *sugeroki*

*Kurosoyogo, Ushikaba*

Okamoto 1941: 58 (as *I. Sugeroki* Maxim. subsp. *longipedunculata* Makino), Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 15.

Japan (Honshu [the Pacific side east to Yamanashi, and Kinki and Chugoku Distr.], Shikoku.)



Some specimens (with an asterisk) have the intermediate forms between var. *sugeroki* and var. *brevipedunculata* with short pedicels.

Nanase—Haino, *M. Tagawa* 2063; Ootsubo, *S. Okamoto* 12343; Sasari—Haino, *S. Yasuda et al.* 955; Chiimura, *G. Koidzumi* (1922 May.); Ashiu, *G. Koidzumi* (1921 Aug.)\*, *A. Nitta* 11949\*.

var. *brevipedunculata* (Maxim.) S. Y. Hu

*Akaminoinsuge*

Okamoto 1930: 60 (as *I. Sugeroki* Maxim. subsp. *brevipedunculata* Makino), Okamoto 1941: 58 (as *I. Sugeroki* Maxim. subsp. *brevipedunculata* Makino), Watanabe 1973: VII, Nakane 1986: 29. Japan (Hokkaido, N. Honshu [Tohoku Distr. and N.C. Chubu Distr.])

See the note of *I. sugeroki* var. *sugeroki*.

Ootsubo, 600m, *S. Okamoto* (1934 Jul.); Ootsubo—Iwatani, *S. Okamoto* (1935 Jul.)

### Araliaceae

*Acanthopanax divaricatus* Seem.

*Keyamaukogi, Oniukogi*

Okamoto 1941: 71, Watanabe 1973: VIII, Nakane 1986: 33, Yamanaka 1991: 21.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, C. China.

Makuratani, *N. Yamanaka* 3295; Ashiu, *S. Okamoto* (1951 Aug.)

*Acanthopanax sciadophylloides* Fr. et Sav.

*Koshiabura*

Okamoto 1930: 75 (as *Kalopanax sciadophylloides* Harms.), Okamoto 1941: 72, Watanabe 1973: VIII, Nakane 1986: 33, Yamanaka 1991: 21.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Naisugidani, *Y. Araki* 515, *M. Tagawa* 1744; Nakayama, *S. Okamoto* (1940 Sept.)

*Acanthopanax spinosus* (L. fil.) Miq.

*Yamaukogi, Ukogi*

Okamoto 1930: 74, Okamoto 1941: 72, Watanabe 1973: VIII, Nakane 1986: 34, Yamanaka 1991: 21.

Japan (Honshu [north to Iwate], Shikoku.)

Sugou—Hitsukura, *S. Yasuda et al.* 878.

*Aralia cordata* Thunb.

*Udo*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 33.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Sakhalin, Korea, China.

Hitsukura, *S. Yasuda* 652.

*Aralia elata* (Miq.) Seemann

form. *elata*

*Taranoki*

Okamoto 1930: 76 (as *A. chinensis* L. var. *glabrescens* Matsum.), Okamoto 1941: 72, Watanabe 1973: VIII, Nakane 1986: 33, Yamanaka 1991: 21.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Sakhalin, E. Siberia.

Haino, *S. Yasuda* 892.

form. *canescens* (Franch. et Sav.) Yamazaki

*Medara*

Okamoto 1930: 76 (as *A. chinensis* L. var. *canescens* Matsum.)

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Sakhalin, E. Siberia.

Keyakizaka, *Y. Araki* 462.

*Evodiopanax innovans* (Siebold et Zucc.) Nakai

*Takanotsume, Imonoki*

Okamoto 1930: 74 (as *Kalopanax innovans* Miq.), Okamoto 1941: 72, Watanabe 1973: VIII, Nakane 1986: 33, Yamanaka 1991: 22.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 411; Ashiu, *Y. Tateishi et al.* 4160.

*Hedera rhombea* (Miq.) Bean

*Kiduta*

Yamanaka 1991: 22.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea.

Bunanokitouge—Nakayama, *S. Yasuda* 924.

*Kalopanax pictus* (Thunb.) Nakai

*Harigiri*

Okamoto 1930: 75 (as *K. ricinifolius* Miq. and *K. ricinifolius* Miq. var. *Maximowiczii* C. K. Schn., "Akudara"), Okamoto 1941: 73 (including *K. pictum* Nakai var. *magnificum* Nakai, "Keharigiri"),

Watanabe 1973: VIII, Nakane 1986: 33, Yamanaka 1991: 22.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Sakhalin.  
 Nanase, S. Yasuda 1192; Iwatani, Y. Araki 556.

*Panax japonicus* C.A. Meyer

form. *japonicus*

Tochibaninjin, Chikusetsuninjin

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 33.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, S. Yasuda 402; Iwatani, Y. Araki 581; Hitsukuradani, S. Okamoto (1936 Sept.), S. Yasuda 402, S. Yasuda et al. 456; Choujidani, K. Iwatsuki 5509; Sasari, S. Okamoto (1933 Jul.); Ashiu, G. Nakai 3327.

form. *dichrocarpum* Nakai

Soushouninjin

Okamoto 1941: 99 (as *Panax japonicum* C.A. Mey. f. *dichrocarpum* Nakai), Watanabe 1973: VIII, Nakane 1986: 33.

Yasuda has seen this form in Makuratani, but missed to take for a specimen.

No specimen.

**Aristolochiaceae**

*Asarum caulescens* Maxim.

Futabaoi, Kamoaoi

Okamoto 1941: 93 (*Japonasarum caulescens* Nakai), Watanabe 1973: IV, Nakane 1986: 12.

Japan (Honshu, Shikoku, Kyushu.)

Sasari, G. Murata 7029, Y. Inamasu 32.

*Heterotropa nipponica* (F. Maek.) var. *rigescens* (F. Maek.) F. Maek. Atsumikan'aoi

Okamoto 1941: 93 (as *H. rigescens* F. Maekawa), Watanabe 1973: IV, Nakane 1986: 12.

Japan (Honshu [Kinki Distr.])

Sugou—Koyomogi, S. Yasuda et al. 818; Mikunitouge, S. Yasuda 237.

**Asclepiadaceae**

*Cynanchum caudatum* (Miq.) Maxim.

Ikema

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, China.

Naisugitani, N. Yamanaka 3227; Shimodani, M. Tagawa (1933 Jul.); Kamitani, M. Tagawa 2291.

*Cynanchum paniculatum* (Bunge) Kitag.

Suzusaiko

Okamoto 1941: 100 (as *Pycnostelma paniculatum* K. Schm.), Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, E. Siberia, Amur, Ussurie.

Chiimura, G. Koidzumi (1921 Aug.)

*Metaplexis japonica* (Thunb.) Makino

Gagaimo

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

No specimen.

*Tylophora aristolochioides* Miq.

Ookamomeduru

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Nanase, S. Yasuda 667; Ashiu, S. Okamoto (1931 Aug.), (1932 Jul.)

**Balsaminaceae**

*Impatiens noli-tangere* L.

Kitsurifune

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 31.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), E. Asia, Shiberia, N. America, Europe.

Sugou—Akasaki, S. Yasuda 442; Nakayama, S. Yasuda et al. 580; Kamitani, ca. 700m, M. Ito et al. 5051; Kamitani—Choujidani, M. Ito 3592; Choujidani, K. Iwatsuki 5515.

*Impatiens textori* Miq.

Tsurifunesou

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 31.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.  
Nanase, *S. Yasuda* 664.

### Berberidaceae

*Caulophyllum robustum* Maxim.

Ruiyoubotan

Okamoto 1941: 95, Watanabe 1973: V, Nakane 1986: 18.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Amur, Ussurie, Sakhalin.

Nanasedani, *S. Yasuda et al.* 290, 291; Naisugidani, *S. Okamoto (1937 May)*, *S. Yasuda et al.* 866;

Sugitani, *S. Okamoto (1933 May)*; Sasaritouge, *K. Iwatsuki* 671; Ashiu, *G. Nakai* 3326.

*Berberis thunbergii* DC.

Megi, Kotoritomarazu

Watanabe 1973: V.

Japan (Honshu [east to Kanto], Shikoku, Kyushu.)

Naisugidani, *S. Yasuda et al.* 868.

*Diphylleia grayi* Fr. Schm.

Sankayou

New.

Japan (Hokkaido, N. Honshu [south to Chubu Distr. and Nara]), Sakhalin.

Rare on the west of Mt. Ibuki.

Shimodani, *N. Yamanaka* 3311.

*Epimedium sempervirens* Nakai

Tokiwaikarisou, Ooikarisou

Okamoto 1941: 95 (as *E. macranthum* Morr. et Decne. var. *hypoglaucom* Makino, "Urajiroikariso"), Watanabe 1973: V.

Japan (Honshu [east to Chubu Distr., the Japan-Sea side])

Sugou—Koyomogi, *S. Yasuda* 53; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 525; Sasari, *G. Murata* 7037; Ashiu, *K. Iwatsuki* 699, *M. Wakabayashi* 292.

### Betulaceae

*Betula grossa* Siebold et Zucc.

Mizume, Yogusominebari

Okamoto 1941: 33 (as *B. carpinifolia* S. et Z.), Watanabe 1973: IV, Nakane 1986: 9 Yamanaka 1991: 3.

Japan (Honshu [north to Niigata and Iwate], Shikoku, Kyushu [to Mt. Takakumayama].)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1308; Akasaki, 700-800m, *S. Okamoto (1936 Sept.)*, (1936 Sept.); Ooyomogi, *S. Okamoto (1936 Oct.)*; Hitsukuradani, *S. Okamoto (1936 May)*; Naisugitani, *N. Yamanaka* 3292, 3324; Nakayama, *S. Okamoto (1940 Jun.)*, (1940 Sept.); Mt. Mikunidake, 680m, *S. Tsugaru et al.* 16243; Sasari—Deai, *M. Tagawa* 2066; Ashiu, *S. Okamoto (1947 Sept.)*, *T. Horikawa* 82, *G. Nakai* 5607, *Y. Tateishi* 4177.

*Carpinus cordata* Blume

Sawashiba

Okamoto 1930: 34, Okamoto 1941: 33 (as *C. erosa* Blume), Watanabe 1973: IV, Nakane 1986: 9, Yamanaka 1991: 3.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.

Sugou—Haino, *S. Yasuda* 906; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1310; Nanase—Iwatani, *S. Okamoto (1936 May)*; Nayasukedani(= Naisugidani), *S. Okamoto (1940 Sept.)*; Naisugidani, *T. Horikawa* 345, 346; Ashiu, *S. Okamoto* 1157.

*Carpinus japoica* Blume

Kumashide

Okamoto 1930: 33 (as *C. carpinoides* Makino), Okamoto 1941: 33 (as *C. carpinoides* Makino), Watanabe 1973: IV, Nakane 1986: 9, Yamanaka 1991: 3.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Kaduragaya, ca. 400m, *M. Ito et al.*; Naisugitani, *N. Yamanaka* 3292; Shimodani, *S. Okamoto (1940 Sept.)*; Choujidani—Ootani, ca. 600m, *E. Kinoshita et al.* 503; Sasari—Ashiu, *G. Murata et al.* 39; Hirogawara—Sasari, *T. Horikawa (1954 May)*; Chiimura, *G. Koidzumi (1922 May)*; Ashiu, *G. Murata* 7069, *A. Nitta* 11936, 12509.

*Carpinus laxiflora* (Siebold et Zucc.) Blume

Akashide, Koshide

Okamoto 1930: 33, Okamoto 1941: 34, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Sugou, *S. Okamoto* (1940 Sept.); Sugou—Kaduragoya, *M. Ito et al.* 1307; Nayasukedani (= Naisugidani), *S. Okamoto* (1940 Sept.), *N. Yamanaka* 3286; Mt. Mikunidake, *G. Koidzumi* (1921 Aug.); Choujidani—Mikunitouge, *A. Nitta* 12550.

*Carpinus tschonoskii* Maxim.

*Inushide, Sone*

Okamoto 1930: 34 (as *C. yedoensis* Maxim.), Okamoto 1941: 34, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Honshu [north to Iwate and Niigata], Shikoku, Kyushu), Korea, China.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1306; Kamitani, *M. Tagawa* (1933 Jul.); Nakayama, *S. Okamoto* (1940 Sept.); Choujidani, *M. Hotta* 14868; Ashiu, *G. Nakai* 3331, 5597, *T. Horikawa* 85.

*Corylus sieboldiana* Blume

*Tsunohashibami*

Okamoto 1930: 34 (as *C. rostrata* Ait. var. *sieboldiana* Maxim.), Okamoto 1941: 34, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Kaduradani, *M. Tagawa* 2064, *Y. Araki* (1933 Jul.); Naisugidani, *S. Okamoto* (1940 Sept.); Hitsukuradani, *S. Yasuda*, 89; Bunanokitouge—Nakayama, *S. Yasuda* 916; Sukendani, *S. Yasuda* 566; Nakayama, *S. Okamoto* (1940 Sept.); Jizoutouge—Nodabata, *S. Yasuda* 43; Sasaritouge, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Ashiu, *G. Nakai* 3329, *T. Horikawa* 80, 81.

**Boraginaceae**

*Bothriospermum tenellum* (Hornem.) Fisch. et C. A. Mey.

*Hanaibana*

Okamoto 1941: 101 (as *B. tenellum* Fisch. et Mey var. *asperugoides* Maxim. in Ehreticeae), Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus, Bonin Isl.), Korea, China, S. E. Asia.

Sugou, *S. Yasuda* 1160.

*Cynoglossum asperum* Nakai

*Onirurisou*

Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea.

Keyakizaka, *Y. Araki* 463.

*Cynoglossum zeylanicum* (Vahl) Thunb.

*Oorurisou*

Watanabe 1973: IX.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, E. Asia, India.

Gerokudani, *T. Ohtomo* 491 (Herb. Ashiu).

*Omphalodes japonica* (Thunb.) Maxim.

*Yamarurisou*

Okamoto 1941: 101 (as *O. japonica* (Thunb.) Maxim. f. *albiflora* S. Okamoto, "Shirobanayamarurisou"), Watanabe 1973: IX (including "Shirobanayamarurisou"), Nakane 1986: 43 (including "Shirobanayamarurisou").

Japan (Honshu [north to Fukushima], Shikoku, Kyushu.)

Sugou—Koyomogi, *S. Yasuda* 75; Kaduradani, *K. Tsuchiya* 75; Nakayama—Iwatani, *N. Yamanaka* 3146; Sasari, *K. Iwatsuki* 669, 700m, *Y. Inamasu* 36.

*Trigonotis brevipes* (Maxim.) Maxim.

*Mizutabirako*

Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 43.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Akasakidani, ca. 400m, *E. Okubo* 25; Sugou—Nanase, *S. Yasuda* 342; Choujidani, *K. Iwatsuki* 5495, ca. 600m, *H. Takahashi* 920; Makuratani, *S. Yasuda* 314; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16234, 670m, 16314, 660m, 16646; Chiimura, *G. Koidzumi* (1921 Aug.), *S. Okamoto* (1930 May).

*Trigonotis peduncularis* (Trevir.) Benth.

*Kyuurigusa, Tabirako*

Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 43.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.) Spread in the temperate and warm regions of Asia and Europe.

No specimen.

**Buxaceae***Pachysandra terminalis* Siebold et Zucc.

Fukukisou

Watanabe 1973: VI.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, Sakhalin.

No specimen.

**Campanulaceae***Adenophora remotiflora* (Siebold et Zucc.) Miq.

Sobana

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 48.

Japan (Honshu, Shikoku, Kyushu), Korea, China, Ussurie, Mongolia.

Hitsukuradani, S. Okamoto (1936 Sept.)

*Adenophora triphylla* (Thunb.) A. DC. var. *japonica* (Regel) Hara TsuriganenjinOkamoto 1941: 104 (as *A. Thunbergiana* Kudo f. *totoki* Hiyama), Watanabe 1973: X, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin.

No specimen.

*Campanula punctata* Lam.

Hotarubukuro

Okamoto 1941: 104 (as *C. punctata* Lam. var. *typica* Makino), Watanabe 1973: X, Nakane 1986: 48.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, E. Siberia, Amur, Ussurie, Okhotsk.

Chiimura, G. Koidzumi (1921 Aug.)

*Codonopsis lanceolata* (Siebold et Zucc.) Trautv.

Tsuruninjin, Jiisobu

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, Ussurie, Amur.

Sugou—Nanase, S. Yasuda 758; Naisugidani, S. Okamoto (1940 Sept.); Mt. Mikunidake, 710m, S. Tsugaru 17127.

*Lobelia chinensis* Lour.

Mizokakushi, Azemushiro

Okamoto 1941: 104 (as *L. radicans* Thunb.), Watanabe 1973: X, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, C. &amp; S. China, Taiwan, India, Malaysia.

Iguri, T. Ohtomo 0565 (Herb. Ashiu).

*Peracarpa carnosus* (Wall.) Hook. fil. et Thomson var. *circaeoides* (Fr. Schm.) Makino

Tanigikyou

Okamoto 1941: 104 (*P. circaeoides* H. Feer), Watanabe 1973: X, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea (Jeju Isl.), China, Sakhalin, Kamchatka.

Sugou—Akasaki, S. Yasuda 220; Sugou—Kaduradani, S. Yasuda 244.

**Caprifoliaceae***Abelia serrata* Siebold et Zucc.

Kotsukubaneutsugi

Okamoto 1930: 91 (as *A. serrata* S. et Z. var. *Buchwaldii* Nakai, "Kibanatsukubaneutsugi"), Okamoto 1941: 83 (as *A. serrata* S. et Z. var. *Buchwaldii* Nakai, "Kibanatsukubaneutsugi"), Watanabe 1973: X as ("Kibanatsukubaneutsugi"), Nakane 1986: 50, Yamanaka 1991: 27.

Japan (Honshu [east to Fukui, C. Shizuoka, and S. Nagano], Shikoku, Kyushu.)

Sugou—Kaduradani, M. Ito et al. 1291; Choujidani, H. Takahashi, 933; Ashiu, Y. Tateishi et al. 4195A.

*Lonicera gracilipes* Miq.

Yamauguisukagura

Okamoto 1930: 91 (as *L. gracilipes* Miq. var. *genuina* Makino), Okamoto 1941: 84, Watanabe 1973: X, Nakane 1986: 50, Yamanaka 1991: 27 (as *L. gracilipes* var. *gracilipes* Miq.).

Japan (W.C. Honshu, Shikoku, Kyushu.)

Sugou, S. Yasuda et al. 879.

*Lonicera japonica* Thunb.

Suikazura, Nindou

Okamoto 1930: 91, Okamoto 1941: 84, Watanabe 1973: X, Nakane 1986: 51, Yamanaka 1991: 27. Japan (Hokkaido [north to Oshima Pen.], Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan.

Sugou, *N. Yamanaka* 3167.

*Sambucus chinensis* Lindley

Sokuzu

Okamoto 1941: 103 (as *Ebulus chinensis* Nakai), Watanabe 1973: X, Nakane 1986: 51. Japan (Honshu, Shikoku, Kyushu), China, Thailand.

No specimen.

*Sambucus racemosa* L. subsp. *sieboldiana* (Miq.) Haravar. *sieboldiana*

Niwatoko

Okamoto 1930: 87 (as *S. Sieboldiana* Blume) and 88 (as *S. Sieboldiana* Blume var. *stenophylla* Nakai; "Hosobaniwatoko"), Okamoto 1941: 84 (as *S. Sieboldiana* Blume), Watanabe 1973: X, Nakane 1986: 51, Yamanaka 1991: 27.

Japan (Honshu, Shikoku, Kyushu), S. Korea.

Sugou—Koyomogi, *S. Yasuda* 46; Keyakizaka, *S. Okamoto* (1938 May); Makuratani, *S. Yasuda* 325; Chiimura, *G. Koidzumi* (1922 May).

var. *major* (Nakai) Murata

Ooniwatoko, Nagaeniatoko

Okamoto 1941: 84 (as *S. longipes* Nakai), Nakane 1986: 51.

Japan (Honshu [the Japan-Sea side])

Sugou—Kaduragoya, *M. Ito et al.* 1301; Iwatani, *S. Okamoto* (1932 Jul.); Sukendani, *S. Yasuda* 269; Makuratani, *S. Yasuda* 324; Ashiu, *S. Okamoto* (1938 Jul.)

*Viburnum dilatatum* Thunb.

Gamazumi

Okamoto 1930: 89 (as *V. dilatatum* Thunb. f. *hispidum* Nakai, "Aragamazumi"), and 90 (as *V. dilatatum* Thunb. f. *pilosulum* Nakai), Okamoto 1941: 85 (as *V. dilatatum* Thunb. f. *hispidum* Nakai, "Aragamazumi"), Watanabe 1973: X, Nakane 1986: 51, Yamanaka 1991: 27.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 413; Chiimura, *G.K. and S.F.* (1922 May); Ashiu, *S. Okamoto* (1927 Jul.)

*Viburnum erosum* Thunb. var. *punctatum* Franch. et Sav.

Kobanogamazumi

Okamoto 1930: 90, Okamoto 1941: 85, Watanabe 1973: X, Nakane 1986: 50, Yamanaka 1991: 27. Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)

Sugou—Nanase, *S. Yasuda et al.* 214, 272.

*Viburnum furcatum* Blume ex Maxim.

Ookamenoki, Mushikari

Okamoto 1930: 88, Okamoto 1941: 85, Watanabe 1973: X, Nakane 1986: 50, Yamanaka 1991: 28. Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea (Jeju Isl. and Ullung Isl.), Sakhalin.

Sugou—Iwatani, *S. Yasuda* 198; Hakozaaka, *S. Okamoto* (1936 May); Makuratani, *K. Ueda* 9, *S. Yasuda* 297; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 527; Mikunitouge, *M. Tagawa* (1933 Jul.); Sasari—Ashiu, *G. Murata* 42; Sasari, *K. Iwatsuki* 685; Ashiu, *Tashiro* (1933 May).

*Viburnum phlebotrichum* Siebold et Zucc.

Otokoyouzome

Okamoto 1930: 90, Okamoto 1941: 86, Watanabe 1973: X, Nakane 1986: 51, Yamanaka 1991: 28. Japan (Honshu, Shikoku, Kyushu.)

Kadura—Nanase, *N. Yamanaka* 3155; Nanase, *S. Okamoto* (1936 Oct.); Sasari—Haino, *S. Yasuda et al.* 974; Chiimura, *G. Koidzumi* (1922 Jun.)

*Viburnum plicatum* Thunb.var. *plicatum* form. *glabrum* (Koidz. ex Nakai) Rehder

Kenashiyabudemari

New.

Japan (Honshu [the Japan-Sea side])

Koyomogi—Nanase, *S. Yasuda et al.* 270; Mikunitouge, *S. Yasuda* 249.

var. *tomentosum* (Thunb. ex Murray) Miq.

Yabudemari

Okamoto 1930: 89 (as *V. tomentosum* Thunb. and *V. tomentosum* Thunb. var. *cuspidatum* Maxim., "Koyabudemari"), Okamoto 1941: 86 (as *V. tomentosum* Thunb. and *V. tomentosum* Thunb. var.

- cuspidatum* Maxim., "Koyabudemari"), Watanabe 1973: X, Nakane 1986: 51, Yamanaka 1991: 28 (as *V. plicatum* Thunb. f. *tomentosum* (Thunb.) Rehder).  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), China, Taiwan.  
 Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1303; Hitsukuradani, *S. Yasuda et al.* 376, 424; Kamitani, *S. Yasuda* 371; Mt. Mikunidake, 660m, *S. Tsugaru* 16247; Makuradani, 650m, *K. Matsui* 46.
- Viburnum urceolatum* Siebold et Zucc. form. *procumbens* (Nakai) Hara *Miyamashigure*  
 Okamoto 1930: 88 (as *V. urceolatum* S. et Z. var. *procumbens* Nakai), Okamoto 1941: 86 (as *V. urceolatum* S. et Z. var. *procumbens* Nakai), Watanabe 1973: X, Nakane 1986: 50, Yamanaka 1991: 28 (as *V. urceolatum* var. *procumbens* Nakai).  
 Japan (N. & C. Honshu)  
 Sugou—Nakayama, *S. Yasuda et al.* 1042; Haino—Nanase, *M. Tagawa* (1933 Aug.); Hitsukuradani, *S. Yasuda* 448; Mt. Mikunidake, 680m, *S. Tsugaru et al.* 16342; Choujidani, *M. Hotta* 15703, Sasari—Hacchourindou, 450-600m, *S. Mimoro* 10383; Chiimura, *G. Koidzumi* (1922 May).
- Viburnum wrightii* Miq. *Miyamagamazumi*  
 Okamoto 1930: 90 (as *V. Wrightii* Miq. var. *typicum* Nakai), Okamoto 1941: 86, Watanabe 1973: X, Nakane 1986: 50, Yamanaka 1991: 28.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Sakhalin.  
 Sugou—Akasaki, *S. Yasuda* 215; Kamitani, *S. Yasuda* 372; Choujidani—Mt. Mikunitouge, 600-800m, *K. Ueda et al.* 539, *S. Yasuda* 250, 299, 326; Mt. Mikunidake, 680m, *S. Tsugaru et al.* 16259; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *S. Okamoto* (1953 Jul.), *G. Murata* 7070.  
 There is a specimen possibly hybrid between *V. wrightii* and *V. phlebotrichum*, "Sugou—Iguri, *S. Okamoto* (1936 May)."
- Weigela hortensis* (Siebold et Zucc.) K. Koch *Taniutsugi*  
 Okamoto 1930: 92 (as *Diervilla hortensis* S. et Z.), Okamoto 1941: 86, Watanabe 1973: X, Nakane 1986: 51, Yamanaka 1991: 28.  
 Japan (W. Hokkaido, Honshu [the Japan-Sea side.])  
 Koyomogi—Nanase, *S. Yasuda et al.* 271; Makuratani, *M. Tagawa* 2101, *S. Yasuda* 329; Chiimura, *G. Koidzumi* (1921 Aug.); Ashiu, *S. Okamoto* 6446, ca. 600m, *H. Takahashi* 927.
- Caryophyllaceae**
- Cerastium holosteoides* Fries var. *hallaisanense* (Nakai) Mizushima *Miminagusa*  
 Okamoto 1941: 94 (as *C. caesoitosum* Gilib. var. *glandulosum* Wirtgen), Watanabe 1973: V, Nakane 1986: 15.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, India.  
 Sugou, *S. Okamoto* (1936 May); Sugou—Akasakidani, ca. 400m, *E. Okubo* 18; Naisugitani, *S. Yasuda et al.* 856; Sukendani, *S. Yasuda* 286.
- Cucubalus baccifer* L. var. *japonicus* Miq. *Nanbanhakobe, Tsurusenou*  
 Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 15.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Sakhalin, Amur, Ussurie.  
 Kamitani, *S. Okamoto* (1936 Sept.)
- Lychnis miqueliana* Rohrb. *Fushigurosenou*  
 Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 15.  
 Japan (C. & W. Honshu [and Kanto Distr.], Shikoku, Kyushu.)  
 Sugou—Nanase, *S. Yasuda* 659; Chiimura, *G. Koidzumi* (1921 Aug.)
- Pseudostellaria heterantha* (Maxim.) Pax *Wachigaisou*  
 New.  
 Japan (Honshu [north to Fukushima], Shikoku, Kyushu), China.  
 Kaduradani, *S. Yasuda* 120.
- Sagina japonica* (Sw.) Ohwi *Tsumekusa*  
 Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 15.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Taiwan, India, Himalaya, Tibet.  
 Sugou, *S. Yasuda* 1070; Nanase, *S. Yasuda* 340; Choujidani, *S. Yasuda et al.* 488.

*Silene firma* Siebold et Zucc.

*Fushiguro*

Okamoto 1941: 94 (as *Melandrium firmum* Rohrb.), Watanabe 1973: V, Nakane 1986: 16.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Amur, Ussurie.  
Nakayama, S. *Okamoto* (1940 Sept.)

*Stellaria alsine* Grimm var. *undulata* (Thunb.) Ohwi

*Nominofusuma*

Okamoto 1941: 94 (as *S. uliginosa* Murr.), Watanabe 1973: V, Nakane 1986: 15.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.  
Kaduradani, S. *Yasuda* 114, 234; Nanase—Iwatani, S. *Okamoto* (1930 May); Naisugitani, S. *Yasuda et al.* 862.

*Stellaria diversiflora* Maxim.

*Sawahakobe, Tsuruhakobe*

Okamoto 1941: 94 (including *S. diversiflora* Maxim. var. *diandra* Maxim., "Tsuruhakobe"), Watanabe 1973: V, Nakane 1986: 15.  
Japan (Honshu, Shikoku, Kyushu.)  
Sugou—Kaduradani, S. *Yasuda* 233, 1071; Bunanokitouge—Nakayama, S. *Yasuda* 945; Hosodani, S. *Okaoto* (1933 Jul.); Mt. Mikunidake, 670m, S. *Tsugaru et al.* 16329.

*Stellaria media* (L.) Villars

*Hakobe, Kohakobe*

Okamoto 1941: 94 (as *S. media* Cyr.), Watanabe 1973: V (as "Kohakobe"), Nakane 1986: 15.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread around the world.  
Sugou—Koyomogi, S. *Yasuda et al.* 815; Nanase, S. *Okamoto* (1937 Apr.); Hitsukuradani, S. *Yasuda* 167; Choujidani—Mikunitouge, S. *Yasuda et al.* 822.

*Stellaria monosperma* Buch.-Ham. var. *japonica* Maxim.

*Ooyamahakobe*

Okamoto 1941: 94 (as *S. paniculigera* Makino), Watanabe 1973: V, Nakane 1986: 15.  
Japan (Honshu [north to Akita], Shikoku, Kyushu.)  
Nanase, S. *Yasuda* 660; Hitsukuradani, S. *Okamoto* (1936 Sept.); Keyakizaka, N. *Yamanaka* 3246; Kamitani, S. *Yasuda et al.* 768; Mt. Mikunidake, 690m, S. *Tsugaru et al.* 16366; Ashiu, G. *Nakai* 5598.

*Stellaria uchiyamana* Makino

*Yamahakobe*

Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 16.  
Japan (Honshu [east to Kinki Distr.], Shikoku, Kyushu.)  
No specimen.

## Celastraceae

*Celastrus orbiculatus* Thunb.

var. *orbiculatus*

*Tsuruumemodoki*

Okamoto 1930: 63 (as *C. articulatus* Thunb.), Okamoto 1941: 59 (as *C. Tatarinovii* Rupr.), Watanabe 1973: VII, Nakane 1986: 29, *Yamanaka* 1991: 15.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea, China.  
Sugou, M. *Andoh* 1524 (Herb. Ashiu); Hacchuu, M. *Andoh* 1220, 1221, 1254 (Herb. Ashiu).

var. *strigillosus* (Nakai) Makino

*Onitsuruumemodoki*

Nakane 1986: 29, *Yamanaka* 1991: 15.  
Japan (Hokkaido, N. Honshu [from Tohoku Distr. to Kinki Distr.]), S. Kurils, Korea, Sakhalin.  
Nakayama, S. *Okamoto* (1940 Sept.)

*Celastrus stephanotifolius* (Makino) Makino

*Ootsuruumemodoki*

Okamoto 1941: 59, Watanabe 1973: VII, .  
Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), S. Korea.  
No specimen.

*Euonymus alatus* Siebold

form. *microphyllus* (Nakai) Hara

*Kobamayumi, Himekomayumi*

Okamoto 1941: 59 (as *E. alatus* Siebold var. *microphylla* Nakai), Watanabe 1973: VII 61 - 63, Nakane 1986: 29, *Yamanaka* 1991: 15 (as *E. alatus* Siebold var. *microphyllus* (Nakai) Nakai).  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.  
Some specimens (with an asterisk) have intermediate forms between form. *microphyllus* and form. *striatus*.



Sugou—Akasaki, ca. 400m, *E. Okubo et al.* 21; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1276\*; Koyomogi, *S. Yasuda et al.* 274; Shimodani, *S. Okamoto (1936 Oct.)*, *M. Tagawa* 2029; Nakayama, *S. Okamoto (1940 Sept.)*; Choujidani, ca. 700m, *G. Murata* 46647; Makuratani, *S. Yasuda* 1057; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16338, 690m, 17117; Sasari—Ashiu, 600-900m, *G. Murata et al.* 38; Ashiu, *T. Takeuchi (1943 Aug.)*, *G. Nakai* 5602, ca. 600m, *N. Naruhashi* 1121.

form. *striatus* (Thunb.) Makino

*Komayumi*

Okamoto 1930: 61 (as *E. striatus* Makino), Okamoto 1941: 60 (as *E. alatus* Siebold var. *subtriflorus* Fr. et Sav.), Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 15 (as *E. alatus* f. *ciliatodentatus* (Fr. et Sav.) Hiyama).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, N.E. China, Sakhalin, Ussurie.

See the note of *Euonymus alatus* form. *microphyllus*.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1273; Choujidani, ca. 600m, *H. Takahashi* 929; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16384\*.

*Euonymus fortunei* (Turcz.) Handel-Mazz.

*Tsurumasaki*

Okamoto 1930: 63 (as *E. japonicus* Thunb. var. *radicans* Miq.), Okamoto 1941: 60 (as *E. Fortunei* Handel-Mazz. var. *radicans* Rehd.), Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 15. Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyu), Korea, China.

Mt. Mikunidake, ca. 660m, *S. Tsugaru et al.* 16668.

*Euonymus lanceolatus* Yatabe

*Murasakimayumi*

Okamoto 1930: 63, Okamoto 1941: 60, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 16.

Japan (Honshu [the Japan-Sea side from Niigata to Tottori], N. Kyushu.)

Nakayama—Iwatani, *M. Tagawa* 1749; Hitsukuradani, *S. Yasuda* 453; Bunanokitouge—Nakayama, *S. Yasuda* 936; Makuratani, *S. Yasuda et al.* 517.

*Euonymus melananthus* Fr. et Sav.

*Sawadatsu, Aojikumayumi*

Okamoto 1930: 62 (as *E. melananthus* Fr. et Sav.), Okamoto 1941: 60, Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 16.

Japan (Honshu, Shikoku, Kyushu [south to Kumamoto].)

Nanase—Iwatani, *M. Tagawa* 1749; Hitsukuradani, *N. Yamanaka* 3234; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.), *N. Yamanaka* 3322.

*Euonymus oxyphyllus* Miq.

*Tsuribana*

Okamoto 1930: 62 (as *E. oxyphylla* Miq.), Okamoto 1941: 60, Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 16.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China.

Kamitani, *S. Yasuda et al.* 763; Makuratani, *S. Yasuda* 327.

*Euonymus sieboldianus* Blume

*Mayumi*

Okamoto 1930: 62 (as *E. Sieboldianus* Blume), Okamoto 1941: 60, Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 16.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, S. Korea, Sakhalin.

Shimizu (1989) recognized a taxon with leaves hairy beneath as *Euonymus sieboldianus* var. *sanguineus*. But we put the specimens with this character state into *E. sieboldianus*, following Kitamura et al. (1971) who does not recognize this variety.

Onokodani, *S. Okamoto (1935 Jul.)*; Akasaki, *H. Takahashi et al.* 26; Hitsukuradani, *S. Yasuda et al.* 427; Nakayama, *S. Yasuda et al.* 568; Shimodani, *M. Tagawa* 2077; Choujidani, *G. Murata* 46648, *S. Yasuda* 1152; Kamitani, *M. Ito* 3582; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16386; Chiimura, *G. Koidzumi (1922 May)*; Shuzan—Ashiu, *S. Tanaka (1932 Jul.)*

### Cercidiphyllaceae

*Cercidiphyllum japonicum* Siebold et Zucc.

*Katsura*

Okamoto 1930: 40, Okamoto 1941: 39, Watanabe 1973: V, Nakane 1986: 14, Yamanaka 1991: 6. Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Busen, *M. Andoh* 1450 (Herb. Ashiu); Iwatani—Nakayama, *S. Miyake et al.* 0212 (Herb. Ashiu).

**Chenopodiaceae***Chenopodium album* L.

Shiroza

Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 14.

Naturalized in Japan (Hokkaido, Honshu, Shikoku, Kyushu), and N. America. Widespread from the temperate to tropical regions in the world. Native to China.

Seems to be a prehistoric naturalized plant.

No specimen.

**Chloranthaceae***Chloranthus serratus* (Thunb.) Roem. et Schult.

Futarishizuka

Okamoto 1941: 92, Watanabe 1973: IV, Nakane 1986: 14.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China.

Hitsukuradani, *S. Yasuda* 388.**Clethraceae***Clethra barbinervis* Siebold et Zucc.

Ryoubu

Okamoto 1930: 78, Okamoto 1941: 74, Watanabe 1973: VIII, Nakane 1986: 38, Yamanaka 1991: 23.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

Bunanokitouge—Nakayama, *S. Yasuda* 933; Nodabata or Shimodani, *S. Yasuda* 476; Choujidani, *K. Iwatsuki* 5490; Mikunitouge, *M. Tagawa* (1933 Jul.)**Compositae***Adenocaulon himalaicum* Edgew.

Nobuki

Okamoto 1941: 104 (as *A. adhaerescens* Maxim.), Watanabe 1973: X, Nakane 1986: 52.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Himalaya.

Sugou—Akasaki, *S. Yasuda* 635; Naisugidani, *S. Okamoto* (1940 Sept.); Jizoutouge—Nakayama—Sugitouge, 650m, *S. Tsugaru et al.* 16811, 670m, 17138; Ashiu, *S. Kitamura* (1940 Sept.)*Ainsliaea acerifolia* Sch. Bip. var. *subapoda* Nakai

Okumomijihaguma

Watanabe 1973: X, Nakane 1986: 51.

Japan (Honshu, N. Kyushu), Korea, China.

Sukendani, *S. Yasuda et al.* 584; Sasari, *H. Koyama* 921, ca. 600m, *S. Mitsuta et al.* (1978 Jul.), *S. Fujii* 61, *S. Yasuda et al.* 985; Ashiu, *S. Kitamura* (1940 Sept.)*Ainsliaea apiculata* Sch. Bip.

Kikkouhaguma

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 51.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea.

Makuratani—Mikunitouge, *S. Yasuda* 632, 775.*Ambrosia artemisiaefolia* L. var. *elatior* (L.) Descurtilz

Butakusa

Watanabe 1973: X, Nakane 1986: 54.

Naturalized around Japan. Native to N. America.

Naturalized to Japan in the beginning of the Showa era. Native to North America.

No specimen.

*Anaphalis margaritacea* (L.) Benth. et Hook. fil.subsp. *japonica* (Sch. Bip.) Kitam.

Hosobanoyamahahako

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu [east to Fukui and Aichi], Shikoku, Kyushu.)

No specimen.

subsp. *yedoensis* (Franch. et Sav.) Kitam.

Kawarahahako

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 52.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Ashiu, *S. Okamoto* (1936 Oct.)*Arnica mallatopus* (Franch. et Sav.) Makino

Choujigiku, Kumagiku

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu, Shikoku.)

Iwatani—Nanase, *N. Yamanaka* 3178; Ashiu, *G. Koidzumi* (1921 Aug.)

*Artemisia japonica* Thunb.

Otokoyomogi

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 55.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Philippines, India, Afghanistan, Ussurie.

Nodabata, S. Miyake et al. 49 (Herb. Ashiu).

*Artemisia montana* (Nakai) Pamp.

Ooyomogi

New.

Japan (Hokkaido, N. Honshu [south to Kinki Distr.]), S. Kurils, Sakhalin.

Nanase, S. Okamoto (1936 Sept.)

*Artemisia princeps* Pamp.

Yomogi, Kazusakiyomogi

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 56.

Japan (Honshu, Shikoku, Kyushu, Bonin Isl.), Korea.

Nakayama, S. Okamoto (1940 Sept.); Choujidani, S. Yasuda 740; Mt. Mikunidake, 660m, S. Tsugaru et al. 17140.

*Aster ageratoides* Turcz.subsp. *amplexifolius* (Siebold et Zucc.) Kitam.

Yamashirogiku, Inakagiku

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 56 (He put "Yamashirogiku" and "Shiroyomena" into one species.).

Japan (Honshu [east to Tokai Distr.], Shikoku, Kyushu.)

Ashiu, M. Ito et al. A-21.

subsp. *angustifolius* (Kitam.) Kitam.

Hosobakongiku

Okamoto 1941: 104 (as "Hirohanosenbongiku, Mayasankongiku"), Watanabe 1973: X.

Japan (Honshu [east to Kanagawa and Tokai Distr.], Shikoku, Kyushu.)

Naisugedani, S. Okamoto (1940 Sept.); Ashiu, S. Okamoto (1940 Sept.), H. Koyama 0930.

subsp. *leiophyllus* (Franch. et Sav.) Kitam.

Shiroyomena

Okamoto 1941: 104, Nakane 1986: 55.

Japan (Honshu, Shikoku, Kyushu), Taiwan.

Sugou—Nanase, S. Yasuda 669; Naisugi, S. Okamoto (1936 Oct.); Keyaki, S. Kitamura (1940 Sept.);

Ashiu, S. Kitamura (1940 Sept.), S. Okamoto 20210, (1940 Sept.), H. Koyama 929.

subsp. *ovatus* (Franch. et Sav.) Kitam.

Nokongiku

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu, Shikoku, Kyushu.)

Nakayama, S. Yasuda 1093.

*Aster glehni* Fr. Schm. var. *hondoensis* Kitam.

Gomana

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu.)

Sugou—Nanase, S. Yasuda 719, 759; Choujidani, K. Iwatsuki 5508; Makuratani—Oisugi, M. Hutoh 24549; Ashiu, S. Okamoto (1931 Aug.), S. Kitamura (1940 Sept.)

*Aster scaber* Thunb.

Shirayamagiku

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 55.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Amur, Ussurie.

Kamitani, M. Ito 3587; Choujidani—Mikunitouge, S. Yasuda et al. 699; Ashiu, S. Kitamura (1940 Sept.)

*Aster subulatus* Michx.

Houkigiku

Watanabe 1973: XI.

Naturalized around Japan. Native to N. America.

Native to North America. Found first in Osaka in the end of the Meiji era. Now in common over Japan.

No specimen.

*Bidens frondosa* L.

Amerikasendangusa

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 56.

Naturalized around Japan. Native to N. America.  
 Naturalized in the Taisho era or around 1920. Native to North America.  
 Makuratani, S. Yasuda 776.

*Bidens tripartita* L.

Taukogi

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in Asia, Europe, N. Africa and Australia.  
 Ashiu, S. Kitamura (1940 Sept.)

*Cacalia delphiniifolia* Siebold et Zucc.

Momijigasa

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 54.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, S. Yasuda 639; Hitsukuradani, S. Yasuda 551; Choujidani, K. Iwatsuki 5519;  
 Mikunidake, ca. 400m, N. Kurosaki 11950.

*Cacalia nikomontana* Matsum.

Ookanikomori

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu [the Japan-Sea side])

Sukendani, S. Yasuda et al. 585; Mt. Mikunidake, 650m, S. Tsugaru et al. 16806; Ashiu, S. Okamoto  
 (1926 Oct.), S. Kitamura (1940 Sept.), H. Koyama 932.

*Cacalia peltifolia* Makino

Taimingasa

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu [the Japan-Sea side from Hokuriku to N. Kinki.])

Naisugidani, S. Kitamura (1940 Sept.); Sukendani, S. Yasuda 796; Ashiu, ca. 600m, H. Koyama  
 934.

*Carpesium abrotanoides* L.

Yabutabako

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 55.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Himalaya. Naturalized in  
 Europe and W. Asia.

Akasaki higashitani, T. Ohtomo 49 (Herb. Ashiu).

*Carpesium divaricatum* Siebold et Zucc.var. *divaricatum*

Gankubisou

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 54.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan.

Sugou—Akasaki, S. Yasuda 638; Naisugidani, S. Okamoto (1936 Sept.), (1940 Sept.); Houtani, S.  
 Okamoto (1936 Sept.); Makuratani, S. Yasuda et al. 697, 698; Mt. Mikunidake, 650m; 500-900m,  
 N. Kurosaki 11921, S. Tsugaru et al. 16808; Sasari, H. Koyama 923.

var. *abrotanoides* (Koidz.) Kitam.

Hosobagankubisou

New.

Japan (Honshu, Shikoku, Kyushu.)

Mondoridani, N. Yamanaka 3254.

var. *matsuei* (Tatew. et Kitam.) Kitam.

Nopporogankubisou

New.

Japan (Hokkaido, Honshu [south to Kinki Distr.])

Choujidani, K. Iwatsuki 5514.

*Carpesium glossophyllum* Maxim.

Sajigankubisou

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 54.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Himalaya. Naturalized in Europe and  
 W. Asia.

Sugou—Nanase, S. Yasuda 668.

*Centipeda minima* (L.) A. Br. et Ascherson

Tokinsou, Hanahirigusa

Okamoto 1941: 105 (as *C. minima* O. Kuntze), Watanabe 1973: X, Nakane 1986: 54.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, E. Siberia, India, Malaysia,  
 Australia. Naturalized in N. America.

No specimen.

*Cirsium dipsacolepis* (Maxim.) Matsum.

Moriazami

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 56.

Japan (Honshu, Shikoku, Kyushu.)

Nakayama, S. *Okamoto* (1936 Sept.), (1940 Sept.); Ashiu, G. *Koidzumi* (1921 Aug.), S. *Kitamura* (1940 Sept.)*Cirsium japonicum* DC.

Noazami

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu, Shikoku, Kyushu.)

Sugou, S. *Yasuda* 1056; Iguri, S. *Yasuda* 406; Mikunitouge, S. *Yasuda* 528.*Cirsium kagamontanum* Nakai

Kaganoazami

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 56.

Japan (Honshu [the Japan-Sea side south to Kinki Distr.])

Sugou—Kaduradani, S. *Yasuda* 713; Onokodani, S. *Okamoto* (1940 Sept.); Bunanokitouge—Nakayama, S. *Yasuda* 1164; Makuratani, S. *Okamoto* (1936 Sept.); Jizoutouge—Nakayama—Sugiotouge, 680m, S. *Tsugaru et al.* 16810, 660m, 17132, 670m, 17133, 700m, 17134; Ashiu, S. *Okamoto* (1936 Sept.), (1940 Oct.), S. *Kitamura* (1940 Sept.)*Cirsium longepedunculatum* Kitam.

Nagaenozami

Okamoto 1941: 105, Watanabe 1973: X.

Japan (Honshu [the Japan-Sea side of Hyogo, Kyoto, Shiga, and Fukui.])

Akasaki, S. *Okamoto* (1936 Sept.)*Cirsium microspicatum* Nakai var. *kiotoense* Kitam.

Oharameazami

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 56.

Japan (Honshu [Kinki Distr., Chubu Distr.: Fukui, Ishikawa, Toyama, and Gifu.])

Nanase—Akasaki, S. *Okamoto* (1936 Sept.); Mt. Mikunidake, N. *Kurosaki* 11952; Ashiu, S. *Okamoto* (1940 Sept.)*Cirsium sieboldii* Miq.

Kiseruazami

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 52.

Japan (Honshu, Shikoku, Kyushu.)

Choujidan, S. *Okamoto* (s.n.), S. *Yasuda* 739, 795, 1061.*Crassocephalum crepidioides* (Benth.) S. Moore

Benibanaborogiku

Watanabe 1973: XI.

Naturalized east to Kanto so far. Native to Africa.

Found first in Fukuoka in 1950. Native to Africa. Fugitive to deforested or burnt areas.

Sugiotouge, S. *Yasuda* 1091.*Erechtites hieracifolia* (L.) Raf.

Dandoborogiku

Watanabe 1973: X, Nakane 1986: 56.

Naturalized. Native to N. America.

Found first in Aichi around 1930. Native to North America.

Onoko-nishidani, *Mitsueda* 25 (Herb. Ashiu).*Erigeron canadensis* L.

Himemukashiyomogi

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 53.

Naturalized around Japan. Native to N. America.

Naturalized in the beginning of the Meiji era. Native to North America. Now in common in Japan.

Sugou, T. *Ohtomo* 23 (Herb. Ashiu).*Eupatorium chinense* L.subsp. *chinense*

Hiyodoribana

Okamoto 1941: 105 (as *E. japonicum* Thunb.), Watanabe 1973: X, Nakane 1986: 54.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Philippines.

Yusen, M. *Andoh* 345 (Herb. Ashiu).subsp. *sachalinense* (Fr. Schem.) Kitam.

Yotsubahiyodori

Okamoto 1941: 105 (as *E. hakonense* Nakai, "Hakonehiyodori"), Watanabe 1973: X (as "Hosoba-yotsubahiyodoribana"), Nakane 1986: 56 (as "Hakonehiyodori").

Japan (Hokkaido, Honshu [west to Kinki Distr.], Shikoku), Sakhalin.

Sasari, ca. 600 m, *S. Mitsuta et al.* (1978 Jul.); Ashiu, *S. Kitamura* (1940 Sept.); Shuzan—Ashiu, *S. Tanaka* (1932 Jul.)

*Eupatorium lindleyanum* DC.

*Sawahiyodori*

Okamoto 1941: 105 (including *E. lindleyanum* DC. var. *eglandulosum* Kitam., "Hoshinashisawahiyodori"), Watanabe 1973: X (including "Hoshinashisawahiyodori").

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Indochina, India, Philippines, Amur, Ussurie.

Nakayama, *S. Okamoto* (1940 Sept.); Kamitani, *S. Yasuda* 481, 779; Choujidani, *S. Okamoto* (1936 Sept.), *K. Iwatsuki* 5505, *S. Yasuda* 737; Choujidani—Mikunitouge, *S. Yasuda et al.* 700; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 17139; Ashiu, *S. Okamoto* (1936 Sept.)

*Gnaphalium japonicum* Thunb.

*Chichikogusa*

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 53.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan.

Haino—Nanase, *S. Miyake et al.* 59 (Herb. Ashiu).

*Helianthus tuberosus* L.

*Kikuimo*

Watanabe 1973: X, Nakane 1986: 54.

Introduced and naturalized around Japan. Native to America.

Introduced in the end of the Edo era and naturalized. Native to America.

No specimen.

*Ixeris dentata* (Thunb.) Nakai

var. *dentata*

*Nigana*

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 54.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea.

Sasari—Haino, *S. Yasuda* 986; Hitsukuradani, *S. Yasuda* 389; Mikunitouge, *S. Yasuda* 294.

var. *albiflora* (Makino) Nakai form. *amplifolia* (Kitam.) Hiyama *Oobananigana, Oonigana*

Okamoto 1941: 105 (as *I. dentata* Nakai var. *amplifolia* Kitamura), Watanabe 1973: X, Nakane 1986: 52.

Japan (Hokkaido, Honshu, Shikoku.)

No specimen. (There is a specimen taken in Oisugi near Mikunitouge.)

*Ixeris stolonifera* A. Gray

*Iwanigana, Jishibari*

Okamoto 1941: 105, Watanabe 1973: X.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Sugou, *S. Yasuda* 908; Sugiotouge, *S. Yasuda* 355.

*Kalimeris pinnatifida* (Maxim.) Kitam.

*Yuugagiku*

Okamoto 1941: 105, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu [south to Kinki Distr.])

Sugou—Kaduradani, *S. Yasuda* 637, 715; Shimodani, *S. Okamoto* (1940 Sept.); Choujidani, *N. Yamanaka* 3241; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 17135.

*Kalimeris yomena* Kitam.

*Yomena, Ohagi*

Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 55.

Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu), S. Korea.

No specimen.

*Lactuca indica* L.

form. *indica*

*Akinonogeshi*

Okamoto 1941: 106 (as *L. squarrosa* Miq.), Watanabe 1973: X, Nakane 1986: 52.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, S.E. Asia, Malaysia.

No specimen.

form. *indivisa* (Makino) Hara

*Hosobaakinonogeshi*

Okamoto 1941: 106 (as *L. squarrosa* Miq. f. *indivisa* Honda), Watanabe 1973: X, Nakane 1986: 54.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, S.E. Asia, Malaysia.

No specimen.

- Lactuca raddeana* Maxim. var. *elata* (Hemsl.) Kitam. *Yamanigana*  
 Okamoto 1941: 106 (as *L. Raddeana* Maxim.), Watanabe 1973: X, Nakane 1986: 53.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, Indochina, Sakhalin.  
 Sugou—Nanase, *S. Yasuda* 665; Choujidani, *S. Yasuda* 1183; Chiimura, *G. Koidzumi* (1921 Aug.);  
 Ashiu, *S. Kitaumra* (1940 Sept.)
- Lactuca sororia* Miq. *Murasakinigana*  
 Watanabe 1973: X, Nakane 1986: 54.  
 Japan (Honshu, Shikoku, Kyushu), C. China.  
 Nakayama, *S. Yasuda et al.* 586; Chiimura, *G. Koidzumi* (1921 Aug.)
- Lapsana apogonoides* Maxim. *Koonitabirako*  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Honshu, Shikoku, Kyushu), Korea (Jeju Isl.), China.  
 No specimen.
- Leibnitzia anandria* (L.) Turcz. *Senbonyari*  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 56.  
 Japan (Hokkaido, Honshu), S. Kurils, China, Taiwan, Mongolia, Amur, Ussurie, Sakhalin, Siberia.  
 Mikunitouge, *S. Yasuda et al.* 829.
- Ligularia fischerii* (Ledeb.) Turcz. *Otakarakou*  
 Okamoto 1941: 106 (as *L. Fischeri* Turcz. var. *euodon* Kitamura, "Ohwotakarako"), Watanabe 1973:  
 X, Nakane 1986: 51 (including "Ohwotakarako").  
 Japan (Honshu [north to Fukushima], Shikoku, Kyushu), Korea, China, E. Siberia, Amur, Ussurie,  
 Sakhalin, Mongolia, Himalaya.  
 Sasari, *H. Koyama* 922.
- Miyamayomena savatieri* (Makino) Kitam. *Miyamayomena*  
 Okamoto 1941: 105 (as *Gymnaster Savatieri* Kitamura), Watanabe 1973: X, Nakane 1986: 54.  
 Japan (Honshu, Shikoku, Kyushu.)  
 Hitsukuradani, *S. Yasuda* 391; Keyakizaka, *K. Ueda et al.* 547; Sasari—Ashiu, 600-900m, *G. Murata*  
*et al.* 37; Chiimura, *G. Koidzumi* (1921 Aug.), (1922 May); Ashiu, *Y. Inamasu* 10, *A. Nitta* 11942.
- Pertya rigidula* (Miq.) Makino *Kurumabahaguma*  
 Okamoto 1941: 106 (as *Macroclidium rigidulum* Makino), Watanabe 1973: X, Nakane 1986: 53.  
 Japan (Honshu [south to Kinki Distr.])  
 Mikunitouge, *S. Yasuda et al.* 466, 527, 774; Sasari, ca. 600m, *H. Koyama* 9207, *S. Mitsuta et*  
*al.* (1978 Jul.), *S. Fujii* 62; Chiimura, *G. Koidzumi* (1921 Aug.); Ashiu, *S. Okamoto* (1940 Oct.)
- Pertya robusta* (Maxim.) Beauv. *Kashiwabahaguma*  
 Okamoto 1941: 106 (as *Macroclidium robustum* Maxim.), Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Honshu, Shikoku, Kyushu.)  
 No specimen.
- Pertya scandens* Sch. Bip. *Kouyabouki*  
 Okamoto 1930: 92, Okamoto 1941: 87, 106, Watanabe 1973: X, Nakane 1986: 53, Yamanaka 1991:  
 28.  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), China.  
 Naisugidani, *S. Miyake et al.* 38 (Herb. Ashiu).
- Petasites japonicus* (Siebold et Zucc.) Maxim. *Fuki*  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Honshu [north to Iwate], Shikoku, Kyushu, Ryukyus), Korea, China.  
 Choujidani, *S. Yasuda et al.* 834; Jizoutouge, *S. Yasuda et al.* 807.
- Picris hieracioides* L. subsp. *japonica* (Thunb.) Krylov *Kouzorina*  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 53.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Sakhalin.  
 Hitsukuradani, *S. Yasuda* 460; Ashiu, *S. Kitamura* (1940 Sept.)

- Rhynchospermum verticillatum* Reinw. Shuubunsou  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu, Ryukyus), S. Korea, China, Taiwan, S.E. Asia, India.  
 Yusen, *M. Andoh* 236 (Herb. Ashiu).
- Saussurea pulchella* Fischer Himehigotai  
 Okamoto 1941: 106 (as *S. japonica* DC.), Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, Sakhalin, N.E. China, E. Siberia.  
 No specimen.
- Senecio nikoensis* Miq. Sawagiku  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu.)  
 Sukendani, S. Yasuda 467, 583; Mt. Mikunidake, 670m, S. Tsugaru et al. 16316.
- Senecio pierotii* Miq. Sawaoguruma  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 53.  
 Japan (Honshu, Shikoku, Kyushu, Ryukyus.)  
 No specimen.
- Sigesbeckia orientalis* L.  
 subsp. *glabrescens* (Makino) Kitam. Komenamomi  
 Okamoto 1941: 106 (as *S. glabrescens* Makino), Watanabe 1973: X, Nakane 1986: 56.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan.  
 Sugou—Kaduradani, S. Yasuda 714; Ashiu, S. Kitamura (1940 Sept.)  
 subsp. *pubescens* (Makino) Kitam. Menamomi  
 Okamoto 1941: 106 (as *S. pubescens* Makino), Watanabe 1973: X, Nakane 1986: 53.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Amur, Ussurie.  
 Naisugi, *M. Andoh* 531 (Herb. Ashiu).
- Solidago virgaurea* L. subsp. *asiatica* Kitam. Akinokirinsou  
 Okamoto 1941: 106 (as *S. japonica* Kitamura), Watanabe 1973: X, Nakane 1986: 52.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.  
 Sugou—Kaduradani, S. Yasuda 640, 689, 716; Ashiu, S. Okamoto (1936 Oct.), H. Koyama 927.
- Stenactis annuus* (L.) Cass. Himejoon  
 Okamoto 1941: 105 (as *Erigeron annuus* L.), Watanabe 1973: X, Nakane 1986: 53.  
 Naturalized around Japan. Native to N. America.  
 Naturalized in the end of the Edo era. Native to North America. Common even in the mountains in Japan.  
 Sugou—Akasaki, S. Yasuda 405; Ichinotani, S. Yasuda 480.
- Synurus palmatopinnatifidus* (Makino) Kitam. Kikubayamabokuchi  
 var. *palmatopinnatifidus*  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 56.  
 Japan (Honshu [east to Kinki Distr.], Shikoku, Kyushu.)  
 Sukendani, S. Yasuda 795; Choujidani, S. Yasuda et al. 777.  
 var. *indivisus* Kitam. Yamabokuchi  
 New.  
 Japan (Honshu [east to Aichi], Shikoku, Kyushu), Korea.  
 Choujidani, S. Yasuda 1161; Mikunitouge, S. Yasuda et al. 1162.
- Taraxacum ceratolepis* Kitam. Kensakitanpopo  
 Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 56.  
 Japan (Honshu [Kyoto and Shimane.])  
 No specimen.
- Taraxacum officinale* Weber Seiyoutanpopo  
 Watanabe 1973: X, Nakane 1986: 53.



Naturalized around Japan. Native to Europe.

Native to Europe. Common over Japan.

Sugou, *S. Yasuda* 907.

*Taraxacum pectinatum* Kitam.

*Kushibatanpopo*

Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 56.

Japan (Honshu [Toyama and Kinki Distr.], Shikoku.)

Sugou, 300m, *S. Okamoto* (1936 May); Kamitani, 600m, *S. Okamoto* (1936 May).

*Youngia denticulata* (Houttuyn) Kitam.

*Yakushisou*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Indochina.

Keyakizaka, *N. Yamanaka* 3242; Nakayamarindou, *S. Yasuda* 1094; Sasari, *H. Koyama* 925.

*Youngia japonica* (L.) DC.

*Onitabirako*

Okamoto 1941: 106, Watanabe 1973: X, Nakane 1986: 54.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, S.E. Asia, India, Malaysia, Micronesia, Australia.

Sugou—Nanase, *S. Yasuda* 337; Hitsukuradani, *S. Yasuda* 458; Kamitani, *S. Yasuda* 354.

### Convolvulaceae

*Calystegia hederacea* Wall.

*Kohirugao*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), E. Asia. Naturalized in Okinawa.

Hitsukuradani, *S. Miyake* 489 (Herb. Ashiu).

*Calystegia japonica* Choisy

*Hirugao*

Okamoto 1941: 100 (including *C. subvolubillis* Don var. *albiflora* Makino et Nemoto, "Shiobanahirugao"), Watanabe 1973: IX, Nakane 1986: 43 (including "Shiobanahirugao").

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Chiimura, *G. Koidzumi* (1921 Aug.)

*Calystegia sepium* (L.) R. Br.

*Hirohahirugao*

Watanabe 1973: IX.

Japan (Hokkaido, Honshu.) Widespread in the temperate regions of N. Hemisphere.

Kaduradani, *S. Okamoto* (1931 Aug.); Naisugidani, *S. Okamoto* 12916; Sasari—Hacchourindou, 450-600m, *S. Mimoro* 10398; Ashiu, *G. Nakai* 5613.

*Cuscuta japonica* Choisy

*Nenashikazura*

Okamoto 1941: 101 (as *C. japonica* Choisy var. *thyrsoides* Engler in Cuscutaceae), Watanabe 1973: IX, Nakane 1986: 43 (in "Nenashikazura-ka").

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Amur.

No specimen.

### Cornaceae

*Aucuba japonica* Thunb. var. *borealis* Miyabe et Kudo

*Himeaoki*

Okamoto 1930: 77, Okamoto 1941: 73, Watanabe 1973: VIII, Nakane 1986: 36, Yamanaka 1991: 22.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.)

As Kitamura et al. (1971) and Murata (1964) note, the specimens in Ashiu cannot be identified as var. *japonica* or var. *borealis*. We recorded them as var. *borealis* although all of them have the intermediate forms between these two varieties.

Kaduradani, *K. Tsuchiya* 73; Hitsukuradani, *A. Nitta* 12590; Nakayama—Iwatani, *N. Yamanaka* 3147; Sugiotouge, *Z. Tashiro* (1933 May); Mikunitouge, *Z. Tashiro* (1933 May); Mt. Mikunidake, 640m, *S. Tsugaru et al.* 16250; Sasari, *Y. Inamasu* 45; Ashiu, *Z. Tashiro* (1933 May), *A. Nitta* 11930, 11940.

*Benthamedia japonica* (Siebold et Zucc.) Hara

*Yamaboushi*

Okamoto 1930: 77 (as *Cornus Kousa* Buerger.), Okamoto 1941: 74 (as *Cynoxylon japonica* Nakai),

Watanabe 1973: VIII, Nakane 1986: 37, Yamanaka 1991: 22 (*Cornus Kousa* Buerger ex Hance).

Japan (Honshu, Shikoku, Kyushu, Ryukyus [Ishigaki Isl. and Iriomote Isl.]), Korea.  
Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1300; Hitsukuradani, *S. Yasuda et al.* 426; Kamitani, *M. Ito* 3589, *S. Yasuda* 352; Shimodani, *S. Okamoto* (1935 Jul.); Choujidani, *K. Iwatsuki* 5489, *M. Hotta* 14870; Choujidani—Mikunitouge, *A. Nitta* 12540; Mikunitouge, *S. Okamoto* (1936 Sept.); Makuratani, *M. Tagawa* 1742; Mt. Mikunidake, *S. Tsugaru et al.* 16362, 720m, 16359; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *G. Nakai* 3343, *A. Nitta* 11944.

*Helwingia japonica* (Thunb.) F. G. Dietrich

*Hanaikada*

Okamoto 1930: 77 (as *H. japonica* Willd.), Okamoto 1941: 74 (as *H. japonica* Willd.), Watanabe 1973: VIII, Nakane 1986: 37, Yamanaka 1991: 22.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.)

Sugou—Kaduragaya, ca. 400m, *M. Ito et al.* 1279, *S. Yasuda* 429; Hitsukuradani, *S. Yasuda et al.* 563.

*Swida controversa* (Hemsl.) Sojak

*Mizuki*

Okamoto 1930: 76 (as *Cornus controversa* Hemsl.), Okamoto 1941: 73 (as *Cornus controversa* Hemsl.), Watanabe 1973: VIII, Nakane 1986: 37, Yamanaka 1991: 22.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils [Kunashiri Isl.], Sakhalin, Korea, China, Taiwan, Sakhalin, Himalaya.

Hitsukuradani, *S. Yasuda* 1010, 1168; Shimodani, *M. Tagawa* 1752, *S. Yasuda* 939; Kamitani, *S. Yasuda* 368; Mt. Mikunidake, ca. 670m, *S. Tsugaru et al.*; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *A. Nitta* 11943.

*Swida macrophylla* (Wall.) Sojak

*Kumanomizuki*

Okamoto 1930: 76 (as *Cornus brachypoda* C.A. Mey), Okamoto 1941: 73 (as *Cornus brachypoda* C.A. Mey), Watanabe 1973: VIII, Nakane 1986: 36, Yamanaka 1991: 22 (as *Cornus macrophylla* Wallich).

Japan (Honshu, Shikoku, Kyushu), Korea, China, Taiwan, Himalaya, Afganistan.

Sugou, *S. Yasuda et al.* 975; Hitsukuradani, *S. Yasuda et al.* 558, 1009; Nakayama, *S. Yasuda* 941.

## Crassulaceae

*Hylotelephium verticillatum* (L.) H. Ohba

*Mitsubabenkeisou*

Okamoto 1941: 96 (as *Sedum verticillatum* L.), Watanabe 1973: V, Nakane 1986: 20.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, E. Siberia, Sakhalin, Kamchatka. Ashiu, *Y. Araki* (1933 Aug.)

*Sedum aizoon* L. var. *floribundum* Nakai

*Kirinsou*

Okamoto 1941: 96 (as *S. kamtschaticum* Fisch.), Watanabe 1973: V, Nakane 1986: 20.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, E. Siberia, Amur, Ussurie. Ashiu, *S. Okamoto* (1936 Jul.)

*Sedum subtile* Miq.

*Himerenge*

New.

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)

Sasari, 400m, *Y. Inamasu* 42.

## Cruciferae

*Arabis gemmifera* (Matsum.) Makino

*Hakusanhatazao*

Okamoto 1941: 95 (as *A. senanensis* Makino, "Tsurutagarashi"), Watanabe 1973: V, Nakane 1986: 19 (as "Tsurutagarashi").

Japan (S.W. Hokkaido, Honshu, Shikoku [Mt. Tsurugi], Kyushu [Miyazaki]), Korea.

Sugou—Haino, *S. Yasuda* 269, 270; Sasari—Ashiu, 600-900m, *G. Murata et al.* 36.

*Arabis hirsuta* (L.) Scopoli

*Yamahatazao*

Okamoto 1941: 95 (as *A. nipponica* Boiss), Watanabe 1973: V, Nakane 1986: 20.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate and warm regions of N. Hemisphere.

Haino, *S. Yasuda et al.* 991.

*Capsella bursa-pastoris* Medicus

Nazuna

Okamoto 1941: 95 (as *C. Bursa-palustoris* Moench. var. *auriculata* Makino and *C. Bursa-palustoris* Moench. var. *pinnata* Makino, "Ohnazuna"), Watanabe 1973: V, Nakane 1986: 19 (including "Ohnazuna").

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of N. Hemisphere. Choujidani, S. Yasuda 837.

*Cardamine appendiculata* Franch. et Sav.

Hirohanokonronsou

New.

Japan (N. &amp; C. Honshu.)

Ashiu, G. Koidzumi (1922 May).

*Cardamine dentipetala* Matsum.

Ooketanetsukebana

New.

Japan (N. &amp; C. Honshu [the Japan-Sea side])

Sugou, S. Okamoto (1936 May); Sugou—Haino, S. Yasuda 1079; Kaduradani, S. Yasuda 230; Mt. Mikunidake, 640m, S. Tsugaru et al. 16217, 670m, 16218, 16323; Sasari—Haino, S. Yasuda et al. 978; Ashiu, R. Nishimura 461.

*Cardamine flexuosa* With.

Tanetsukebana

var. *flexuosa*

Okamoto 1941: 95, Watanabe 1973: V, Nakane 1986: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.) Widespread in the temperate regions of N. Hemisphere.

Sugou—Koyomogi, S. Yasuda et al. 819, 836; Naisugidani, S. Okamoto (1938 May); Shimodani, S. Yasuda 944; Kamitani, S. Yasuda 363; Makuratani, S. Yasuda 315.

var. *latifolia* (Maxim.) Makino

Mizutanetsukebana

New.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Kitagawa (1982) does not recognize this taxon, but we follow Kitamura et al. (1961).

Naisugidani, S. Okamoto (1938 May).

*Cardamine leucantha* (Tausch) O. E. Schulz

Konronsou

Okamoto 1941: 95, Watanabe 1973: V, Nakane 1986: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N. & N.E. China, E. Siberia, Amur, Ussurie, Sakhalin.

Sugou, S. Okamoto (1936 May).

*Cardamine regeliana* Miq.

Oobatanetsukebana

Okamoto 1941: 95 (as *C. dentipetala* Matsum.), Watanabe 1973: V (as "Ohtanetsukebana"), Nakane 1986: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, N.E. China, Amur, Ussurie, Kamchatka. Kamitani, S. Yasuda 360; Makuratani, S. Yasuda et al. 820; Chiimura, G. Koidzumi (1922 May), G. Nakai 5608, G. Murata 7057; Ashiu, 400m, Y. Inamasu 13.

*Cardamine yezoensis* Maxim. var. *torrentis* (Nakai) Ohwi

Okuyamagarashi

New.

Japan (Honshu.)

Kitagawa (1982) does not recognize this variety. But we agree with the recognition of this taxa by the size of peduncle by Kitamura et al. (1961).

Makuratani, S. Okamoto (1938 May); Chiimura, G. Koidzumi (1922 May).

*Rorippa indica* (L.) Hiern

Inugarashi

Okamoto 1941: 95 (as *R. atrovirens* Ohwi et Hara f. *obtusula* Ohwi et Hara), Watanabe 1973: V, Nakane 1986: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, India, Philippines. Sugou, S. Yasuda 390, 399, 1078; Onokodani, S. Okamoto (1935 Jul.)

*Wasabia japonica* (Miq.) Matsum.

Wasabi

Okamoto 1941: 95 (as *Eutrema japonica* Koidz.), Watanabe 1973: V, Nakane 1986: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Koyomogi, *S. Yasuda* 78; Kaduradani, 500m, *K. Tsuchiya* 74; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 516; Sasari, *G. Murata* 7033; Chiimura, *G. Koidzumi* (1922 May), *Z. Tashiro* (1933 May), *A. Nitta* 11941.

### Cucurbitaceae

*Gynostemma pentaphylla* (Thunb.) Makino

*Amachaduru*

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Malaysia, India.

Kaduradani, *Y. Araki* 600, *S. Yasuda* 712.

*Melothria japonica* (Thunb.) Maxim. ex Cogn.

*Suzumeuri*

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 48.

Japan (Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

Hitsukuradani, *S. Yasuda* 725; Nayasukedani (= Naisugidani), *S. Okamoto* (1940 Sept.)

### Daphniphyllaceae

*Daphniphyllum macropodum* Miq.

var. *macropodum*

*Yuzuriha*

Watanabe 1973: VI, Nakane 1986: 31 (in "Toudaigusa-ka"; Euphorbiaceae).

Japan (Honshu [east to Fukushima], Shikoku, Kyushu, Ryukyus), S. Korea, China.

See the note of *D. macropodum* var. *humile*. Some specimens (with an asterisk) have the intermediate forms between var. *macropodum* and var. *humile*.

Nanase, *S. Okamoto* (1932 Jul.), (1940 Sept.)\*; Ashiu, *A. Nitta* 11947.

var. *humile* (Maxim.) Rosenthal

*Ezoyuzuriha*

Okamoto 1930: 57 (as *D. humile* Maxim. in Euphorbiaceae), Okamoto 1941: 55 (as *D. humile* Maxim. in Euphorbiaceae), Watanabe 1973: VI, Nakane 1986: 31 (in "Toudaigusa-ka"; Euphorbiaceae), Yamanaka 1991: 14.

Japan (Hokkaido, N.C. Honshu [mainly the Japan-Sea side.])

It is difficult to define between var. *macropodum* and var. *humile* without knowing the height of specimens. Here we avoid to record the specimens with larger leaves than the typical variety if they do not have the note of their height.

Koyomogi—Nanase, *S. Yasuda et al.* 267; Ashiu—Choujidani, *A. Nitta* 12589\*; Choujidani—Jizoutouge, *S. Fujii* 2700; Ashiu, *G. Koizumi* (1921 Aug.), *Z. Tashiro* (1933 May), *G. Nakai* 5601, *G. Murata* 7063.

### Diapensiaceae

*Schizocodon soldanelloides* Siebold et Zucc. var. *magnus* (Makino) Hara *Ooiwakagami*

Okamoto 1941: 100 (as *S. magna* Honda), Watanabe 1973: VIII, Nakane 1986: 39.

Japan (S. Hokkaido, Honshu [Japan-Sea side of Tohoku distr. and Chubu distr.])

Sugou, *S. Okamoto* (1936 May); Hitsukuradani, *S. Yasuda* 100; Choujidani, *K. Iwatsuki* 702, 5510; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 510; Mikunitouge, 760-770m, *S. Fujii* 2699; Mikunidake, 660m, *S. Tsugaru et al.* 16240; Chiimura, *G. Koidzumi* (1921 Aug.); Ashiu, *G. Murata* 51050.

*Shortia uniflora* (Maxim.) Maxim.

*Iwauchiwa*

Okamoto 1941: 100 (as *Schizocodon uniflora* Maxim.), Watanabe 1973: VIII, Nakane 1986: 39.

Japan (Honshu [from Tohoku to E. Chubu Distr.])

Sugou—Akasaki, *S. Yasuda* 2; Nanase—Iwatani, *S. Okamoto* (1936 May); Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 528; Ashiu, *G. Koidzumi* (1921 Aug.)

### Dipsacaceae

*Dipsacus japonicus* Miq.

*Nabena*

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 49.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Hitsukuradani, *S. Okamoto* (1936 Sept.)

**Droseraceae***Drosera rotundifolia* L.

Mousengoke

Nakane 1986: 20.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, Sakhalin.

Shimodani, *S. Yasuda* 864, 1055.**Elaeagnaceae***Elaeagnus multiflora* Thunb. var. *hortensis* (Maxim.) Servettaz.

Tougumi

Watanabe 1973: VII (as "Natsugumi"), Nakane 1986: 36 (as "Natsugumi"), Yamanaka 1991: 21 (as *E. multiflora* form. *Orbiculata* (Makino) Araki, "Natsugumi").

Japan (the Japan-Sea side from Oshima Pen. to C. Kinki Distr., and the Pacific side east to Aichi.)

Choujidani, *N. Yamanaka* 3217, 3231; Chiimura, *G. Koidzumi* (1922 May).*Elaeagnus umbellata* Thunb.

Akigumi

Okamoto 1930: 73, Okamoto 1941: 71 (as *E. crispa* Thunb.), Watanabe 1973: VII, Nakane 1986: 36, Yamanaka 1991: 21.

Japan (Hokkaido [Oshima Pen.], Honshu, Shikoku, Kyushu), Korea, N.E. &amp; C. China.

No specimen.

**Ericaceae***Elliottia paniculata* (Siebold et Zucc.) Benth. et Hook.

Hotsutsuji

Okamoto 1930: 78 (as *Tripetaleia paniculata* S. et Z.), Okamoto 1941: 78 (as *Tripetaleia paniculata* S. et Z. in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 39, Yamanaka 1991: 25 (*Tripetaleia paniculata* Siebold et Zucc.).

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 611; Nakanotsubo, *S. Yasuda et al.* 200; Choujidani, *K. Iwatsuki* 5488;Chiimura, *G. Koidzumi* (1921 Aug.)*Enkianthus campanulata* (Miq.) Nicholson

Sarasadoudan

Okamoto 1930: 81, Okamoto 1941: 76 (as *Meisteria campasulata* Nakai in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 24 (as *E. campanulatus* (Miquel) Nicholson).

Japan (S.W. Hokkaido, Honshu [west to Hyogo], Shikoku [Tokushima.]

Chiimura, *G. Koidzumi* (1922 May).*Epigaea asiatica* Maxim.

Iwanashi

Okamoto 1930: 81, Okamoto 1941: 75 (in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 23 (as *Parapyrola asiatica* (Maxim.) Kitamura).

Japan (S.W. Hokkaido, Honshu [the Japan-Sea side.]

Sugou—Koyomogi, *S. Yasuda et al.* 18, 812.*Gaultheria adenothrix* (Miq.) Maxim.

Akamono, Iwahaze

Okamoto 1930: 82, Okamoto 1941: 75 (in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 23.

Japan (Hokkaido, Honshu, Shikoku.)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1263; Choujidani—Hitsukuradani—Nayasukedani (= Naisugidani), *A. Nitta* 12585; Shimodani, *S. Yasuda* 937; Mikunitouge, *S. Okamoto* 12428, *N. Yamanaka* 3118, 3158, *S. Yasuda* 322; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *S. Okamoto* (1927 Jun.)*Leucothoe grayana* Maxim.var. *grayana*

Hanahirinoki

Okamoto 1930: 81 (as *L. Grayana* Maxim. var. *typica* H. de Boiss., "Ohhanahirinoki"), Yamanaka 1991: 23.

Japan (Hokkaido, Honshu [from Tohoku Distr. to Kinki Distr.]

Kamitani, *S. Yasuda et al.* 999.var. *hypoleuca* Nakai

Urajirohanahirinoki

Okamoto 1941: 75 (as *L. Grayana* Maxim. var. *glaucina* Koidz. in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40.

Japan (Honshu [the Japan-Sea side from Yamagata to Mt. Daisen.]

Kamitani, *M. Tagawa* (1933 Jul.)

*Lyonia ovalifolia* (Wall.) Drude var. *elliptica* (Siebold et Zucc.) Hand.-Mazz. *Nejiki*  
Okamoto 1930: 82 (as *Xolisma elliptica* Nakai), Okamoto 1941: 75 (as *L. Nejiki* Nakai et Hara in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 39, Yamanaka 1991: 24 (as *L. ovalifolia* subsp. *Nejiki* Hara).  
Japan (Honshu [north to Yamagata and Iwate], Shikoku, Kyushu), China, Taiwan.  
Sugou, *S. Yasuda* 938, 1039; Kamitani, *S. Yasuda* 997.

*Menziesia cicalyx* (Miq.) Maxim. *Tsuriganetsutsuji, Usugiyouraku*  
Okamoto 1930: 78, Okamoto 1941: 76 (as *M. tubiflora* Koidz. in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 24.  
Japan (Honshu [east to Yamanashi and Ishikawa], Shikoku [Tokushima.])  
Sugou—Nanase, *S. Yasuda* 67, 102; Choujidani—Ootani, *K. Ueda et al.* 519; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16382; Sasari, *K. Iwatsuki* 679, *G. Murata* 45; Sasari—Touta, *S. Fujii* 58; Chiimura, *G. Koidzumi* (1921 Aug.), (1922 May); Ashiu, *S. Okamoto* (1936 May), *G. Nakai* 3592, 400m, *Y. Inamasu* 17.

*Pieris japonica* (Thunb.) D. Don *Asebi*  
Okamoto 1930: 81, Okamoto 1941: 76 (in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 24.  
Japan (Honshu [north to Miyagi, the Pacific side of Kanto and Chubu Distr., and Kinki and Chugoku Distr.], Shikoku, Kyushu), C. China.  
Sugou, *S. Yasuda* 1040; Hitsukuradani, *S. Yasuda* 94; Mikunitouge, *S. Yasuda* 855.

*Rhododendron degranianum* Carriere var. *hondoense* (Nakai) Hara *Honshakunage*  
Okamoto 1930: 79 (as *R. Metternichii* S. et Z. var. *hondoense* Nakai), Okamoto 1941: 78 (as *R. Metternichii* S. et Z. var. *hondoense* Nakai in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 39, Yamanaka 1991: 25 (*R. Metternichii* var. *hondoense* Nakai).  
Japan (Honshu [east to W. Niigata], N.C. Shikoku.)  
Shimodani, *H. Nagamasu* (1992 May).

*Rhododendron indicum* (L.) Sweet *Satsuki*  
New.  
Japan (Honshu [the Pacific side of C. Honshu east to Kanagawa and Kinki Distr., Yamaguchi], Kyushu [Saga, Kumamoto, and Yakushima Isl.])  
Iwatani—Ootani, *R. Miura* (1990 Sept.)

*Rhododendron japonicum* (A. Gray) Suringar *Rengetsutsuji*  
Okamoto 1930: 79 (including *R. japonicum* Suring. var. *glaucophyllum* Nakai, “Urajirorengetsutsuji”), Okamoto 1941: 77 (including *R. japonicum* Suring. var. *glaucophyllum* Nakai, “Urajirorengetsutsuji” in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40 (including “Urajirorengetsutsuji”), Yamanaka 1991: 24.  
Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu.)  
Choujidani—Mikunitouge, *A. Nitta* 12541; Mikunitouge, *S. Yasuda* 321; Ashiu, *A. Nitta* 11939.

*Rhododendron keiskei* Miq. *Hikagetsutsuji*  
Okamoto 1930: 79, Okamoto 1941: 77 (in Rhodoraceae), Nakane 1986: 39, Yamanaka 1991: 24.  
Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)  
Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1285, *S. Yasuda* 200; Chiimura, *G. Koidzumi* (1921 Aug.)

*Rhododendron lagopus* Nakai var. *niphophilum* (Yamazaki) Yamazaki *Yukigunimitsubatsutsuji*  
New.  
Japan (Honshu [the Japan-Sea side, and Kinki Distr.])  
The specimens used to be defined as *R. nudipes* in Ashiu are now defined as *R. lagopus* var. *niphophilum*, following to the crassification changed by Yamazaki (1989).  
Sugou—Haino, *S. Yasuda* 900; Nanase, *N. Yamanaka* 3153; Hitsukuradani, *S. Yasuda* 152, 153, 195.

*Rhododendron obtusum* (Lindl.) Planchon var. *kaempferi* (Planchon) Wilson *Yamatsutsuji*  
Okamoto 1930: 80 (as *R. Kaempferi* Planch.), Okamoto 1941: 77 (as *R. Kaempferi* Planch. in

Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 39, Yamanaka 1991: 24.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu.)

Choujidani, *M. Hotta* 14872; Mikunitouge, *S. Yasuda* 320, 464; Mt. Mikunidake, 670m, *S. Tsugaru* 16383.

*Rhododendron reticulatum* D. Don

*Kobanomitsubatsutsuji*

Okamoto 1930: 80, Okamoto 1941: 78 (in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 41, Yamanaka 1991: 25.

Japan (Honshu [east to W. Shizuoka and S. Nagano], Shikoku, N. Kyushu.)

Sugou, *N. Yamanaka* 3289.

*Vaccinium hirtum* Thunb.

*Kakuminosunoki*

Okamoto 1930: 83, Okamoto 1941: 79 (in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 23.

Japan (Honshu [mainly the Pacific side from Iwate to Kinki Distr.], E. & S. Shikoku.)

Sugou—Kaduragoya, ca. 400m, *M. Iro et al.* 1284, *S. Yasuda* 432; Haino—Koyomogi, *S. Okamoto* (1932 Jul.); Nakanotsubo, *S. Yasuda et al.* 596; Uhasirindo, *S. Okamoto* 12568; Kamitani, *S. Okamoto* (1939 Jul.), *S. Yasuda et al.* 998; Ashiu, *S. Okamoto* (1932 Jul.)

*Vaccinium japonicum* Miq. var. *ciliare* Matsumura ex Komatsu

*Keakushiba*

Okamoto 1930: 82 (as *Hugeria japonica* Nakai var. *ciliata* Nakai), Okamoto 1941: 75 (as *Hugeria japonica* Nakai var. *ciliata* Nakai in Rhodoraceae), Watanabe 1973: VIII, Nakane 1986: 40, Yamanaka 1991: 23 (as *V. japonicum* Miq., "Akushiba").

Japan (Honshu [east to S.W. Chubu Distr.], Shikoku, Kyushu), Korea (Jeju Isl.)

Sugou, *S. Okamoto* (1935 Jul.); Akasaki, ca. 400m, *H. Takahashi et al.* 24; Nakanotsubo, *S. Yasuda et al.* 597; Kamitani, *S. Yasuda et al.* 518; Mt. Mikunidake, 500-900m, *N. Kurosaki* 11907; Chiimura, *G. Koidzumi* (1921 Aug.)

*Vaccinium oldhamii* Miq.

*Natsuhaze*

Okamoto 1941: 79 (in Rhodoraceae), Nakane 1986: 40, Yamanaka 1991: 23.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea, C. China.

Sugou, *S. Yasuda et al.* 888.

*Vaccinium smallii* A. Gray.

*Oobasunoki*

Okamoto 1930: 83 (*V. Smallii* A. Gray and as *V. Smallii* A. Gray var. *minus* Nakai, "Sunoki"), Okamoto 1941: 79 (as *V. minus* Nakai, "Sunoki", and *V. Smallii* A. Gray in Rhodoraceae), Watanabe 1973: VIII (as "Sunoki", "Ohbasunoki"), Nakane 1986: 39 (as "Sunoki", "Ohbasunoki"), Yamanaka 1991: 23.

Japan (Hokkaido, Honshu [Tohoku Distr., N.C. Chubu Distr., the Japan-Sea side of Kinki and Chugoku Distr.], N.E. Shikoku), S. Kurils, Sakhalin.

Nakanotsubo, *S. Yasuda et al.* 595; Hitsukuradani, *S. Yasuda et al.* 447, 557; Sasari, *S. Yasuda et al.* 965; Sasari—Ashiu, 600-900m, *G. Murata et al.* 52; Ashiu, *S. Okamoto* (1922 Jul.); Chiimura, *G. Koidzumi* (1922 May), *G. Koidzumi* (1922 May).

## Euphorbiaceae

*Acalypha australis* L.

*Enokigusa, Amigasasou*

Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 31.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Ussurie, Caucasus, Philippines.

Choujidani, *S. Yasuda* 683.

*Euphorbia sieboldiana* Morr. et Decne.

*Natsutoudai*

Okamoto 1941: 98, Watanabe 1973: VI, Nakane 1986: 31.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, S. Sakhalin.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1304, *S. Yasuda et al.* 292; Nanase, *S. Okamoto* (1937 Apr.); Nakayama—Iwatani, *N. Yamanaka* 3143; Choujidani, *S. Okamoto* (1957 Jul.), *S. Yasuda* 468; Chiimura, *G. Koidzumi*; Ashiu, *M. Hotta* 19500, 400m, *Y. Inamasu* 14.

*Euphorbia supina* Rafin.

*Konishikisou*

Okamoto 1941: 97 (as *Chamaesyce supina* Hara), Watanabe 1973: VI, Nakane 1986: 31.

Naturalized in Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Native to N. America.  
Naturalized. Native to North America. Seen by waysides.  
Ashiu, *S. Okamoto* (1936 Sept.)

*Mallotus japonicus* Muell. Arg.

*Akamegashiwa*

Okamoto 1930: 58, Okamoto 1941: 55, Watanabe 1973: VI, Nakane 1986: 31, Yamanaka 1991: 14.  
Japan (Honshu [east to Miyagi and Akita], Shikoku, Kyushu, Ryukyus), Korea, S. China, Taiwan.  
Sugou—Nanase, *S. Yasuda* 614, 750.

*Mercurialis leiocarpa* Siebold et Zucc.

*Yamaai*

Okamoto 1941: 98, Watanabe 1973: VI, Nakane 1986: 31.  
Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Indochina.  
Sugou—Nanase, *S. Yasuda* 103; Sasari, *K. Iwatsuki* 672.

*Phyllanthus flexuosus* (Siebold et Zucc.) Muell. Arg.

*Kobannoki*

Okamoto 1930: 57, Okamoto 1941: 55, Watanabe 1973: VI, Nakane 1986: 31, Yamanaka 1991: 14.  
Japan (Honshu [east to Gifu and Fukui], Shikoku, Kyushu, Ryukyus), China, Himalaya.  
Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1275, *S. Yasuda* 434; Hitsukuradani, *S. Yasuda et al.* 428, 1169; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.)

*Phyllanthus matsumurae* Hayata

*Himemikansou*

Okamoto 1941: 98, Watanabe 1973: VI, Nakane 1986: 31.  
Japan (Honshu, Shikoku, Kyushu), Korea, China, Ussurie.  
No specimen.

*Sapium japonicum* (Siebold et Zucc.) Pax et K. Hoffm.

*Shiraki*

Okamoto 1930: 58, Okamoto 1941: 55, Watanabe 1973: VI, Nakane 1986: 31, Yamanaka 1991: 14.  
Japan (Honshu [north to Iwate and Yamagata], Shikoku, Kyushu, Ryukyus [Okinawa Isl. and Iheya Isl.]), Korea, C. China.  
Hitsukuradani, *S. Yasuda* 454; Chiimura, *G. Koidzumi* (1921 Aug.); Ashiu, *Y. Tateishi et al.* 4178.

**Eupteleaceae**

*Euptelea polyandra* Siebold et Zucc.

*Fusazakura*

Okamoto 1930: 39 (in Trochodendraceae), Okamoto 1941: 39, Watanabe 1973: V, Nakane 1986: 14, Yamanaka 1991: 6.  
Japan (Honshu, Shikoku, Kyushu.)  
Akasaki, *N. Yamanaka* 3284, 3306, *S. Yasuda et al.* 613, 811.

**Fagaceae**

*Castanea crenata* Siebold et Zucc.

*Kuri*

Okamoto 1930: 36 (as *C. sativa* Mill. var. *pubinervis* Makino), Okamoto 1941: 34, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.  
Japan (Hokkaido [north to Ishikari and Hidaka], Honshu, Shikoku, Kyushu), S.C. Korea.  
Choujidani, *S. Yasuda* 473; Chiimura, *S. Okamoto* (1932 Jul.)

*Fagus crenata* Blume

*Bunanoki*

Okamoto 1930: 36 (as *F. Sieboldii* Endl.), Okamoto 1941: 35, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 5.  
Japan (Hokkaido [north to Oshima Pen.], Honshu, Shikoku, Kyushu.)  
Keyakizaka, *S. Okamoto* (1937 May); Hitsukuradani, *S. Yasuda* 176, 1171; Naisugitani, *N. Yamanaka* 3293; Choujidani—Mt. Mikunitouge, *A. Nitta* 12548; Jizoutouge—Nakayama—Sugiotouge, 720m, *S. Tsugaru et al.* 17122; Ashiu, *Z. Tashiro* (1933 May).

*Fagus japonica* Maxim.

*Inubuna*

Okamoto 1930: 35, Okamoto 1941: 36, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 5.  
Japan (Honshu [north to Iwate], Shikoku, Kyushu [south to Kumamoto.]



Hitsukuradani, *S. Okamoto* (1937 Aug.), *N. Yamanaka* 3283, *S. Yasuda et al.* 876; Sasari, *T. Horikawa* 350, 700m, *G. Murata* 7038.

*Quercus crispula* Blume

Mizunara

Okamoto 1930: 37, Okamoto 1941: 36, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, S. Sakhalin, S. Korea.

Kadura—Nanase, *N. Yamanaka* 3154; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16373, 670m, 16404.

*Quercus salicina* Blume

Urajirogashi

Okamoto 1930: 37 (as *Q. stenophylla* Makino), Okamoto 1941: 35 (as *Cyclobalanopsis stenophylla* Schott.), Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Honshu [east to Miyagi and Niigata], Shikoku, Kyushu, Ryukyus), Korea (Jeju Isl.), Taiwan. Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1294; Naisugi, *T. Horikawa* 347; Chiimura, *T. Horikawa* 88.

*Quercus serrata* Thunb. ex Murray

Konara

Okamoto 1930: 36 (*Q. glandulifera* Blume), Okamoto 1941: 36, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China.

Makuratani, *S. Yasuda* 246; Ashiu, *T. Horikawa* 348.

*Quercus sessilifolia* Blume

Tsukubanegashi

Okamoto 1930: 37, Okamoto 1941: 35 (as *Cyclobalanopsis paucidentata* Kudo et Masamune), Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 4.

Japan (Honshu [east to Miyagi and Toyama], Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 886, 1036; Chiimura, *G. Koidzumi* (1921 Aug.), (1922 May).

**Flacourtiaceae**

*Idesia polycarpa* Maxim.

Iigiri

Okamoto 1941: 70 (as *Cathayaia polycarpa* Ohwi), Watanabe 1973: VII, Nakane 1986: 34, Yamanaka 1991: 20.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan.

Kaduradani, *M. Tagawa* (1933 Jul.)

**Gentianaceae**

*Gentiana scabra* Bunge var. *buergeri* (Miq.) Maxim.

Rindou

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 42.

Japan (Honshu, Shikoku, Kyushu, Amami Ohshima.)

Makuratani, *S. Yasuda* 1059; Ashiu, *S. Okamoto* (1940 Oct.), *H. Koyama* 0928.

*Gentiana thunbergii* (G. Don) Griseb.

Harurindou

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 42.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

No specimen.

*Gentiana triflora* Pallas var. *japonica* (Kusnez.) Hara

Ezorindou

Okamoto 1941: 100 (as *G. axillariflora* Lév. et Vint.), Watanabe 1973: IX, Nakane 1986: 42.

Japan (Hokkaido, Honshu [west to Kinki Distr.]), S. Kurils, Sakhalin.

Akasaki, *S. Okamoto* (1936 Oct.)

*Gentiana zollingeri* Fawcett

Fuderindou

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 42.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Sakhalin, Amur, Ussurie.

Hitsukuradani, *S. Yasuda* 172; Naisugitani, *N. Yamanaka* 3282; Ashiu, *G. Murata* 7067.

*Swertia bimaculata* (Siebold et Zucc.) Hook. et Thoms.

Akebonosou

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 42.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, N. India.

Nanase, *S. Yasuda* 756; Jizoutouge—Nakayama—Sugiotouge, 660m, *S. Tsugaru et al.* 17124.

*Swertia japonica* (Schult.) Makino

Senburi

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 42.  
Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
Mikunitouge, *S. Miyake et al.* 485 (Herb. Ashiu).

*Tripterospermum japonicum* (Siebold et Zucc.) Maxim.

Tsururindou

Okamoto 1941: 100, Watanabe 1973: IX, Nakane 1986: 42.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Taiwan, Sakhalin.  
Choujidani, *S. Yasuda* 734; Jizoutouge—Nakayama—Sugiotouge, 660m, *S. Tsugaru et al.* 17123.

**Geraniaceae***Geranium nepalense* Sweet subsp. *thunbergii* (Siebold et Zucc.) Hara Gennoshouko, Fuurosou

Okamoto 1941: 97 (as *G. Thunbergii* S. et Z.), Watanabe 1973: VI, Nakane 1986: 28.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Amami Ohshima), S. Kurils, Korea, Taiwan.  
Sugou, *S. Okamoto (1936 Sept.)*; Sugou—Akasaki, *S. Yasuda* 618; Hitsukuradani, *S. Yasuda et al.* 543; Jizoutouge—Nakayama—Sugiotouge, 640m, *S. Tsugaru et al.* 16786; Choujidani, *S. Yasuda* 732, *G. Nakai* 5591.

*Geranium wilfordii* Maxim.

Mitsubafuuro

Watanabe 1973: VI, Nakane 1986: 28.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Amur.  
Nanase, *S. Yasuda* 661; Jizoutouge—Nakayama—Sugiotouge, *S. Tsugaru et al.* 16787.

**Gesneriaceae***Conandron ramondii* Siebold et Zucc.

Iwatabako

Okamoto 1941: 103 (in Cyrtandraceae), Watanabe 1973: IX, Nakane 1986: 44.  
Japan (Honshu [north to Fukushima], Shikoku, Kyushu, Ryukyus.)  
Hitsukuradani, *S. Yasuda* 641; Ootani, *S. Okamoto (1936 Oct.)*; Shimodani, *S. Yasuda* 238; Ashiu, *G. Koidzumi (1921 Aug.)*

**Guttiferae***Hypericum ascyron* L.

Tomoessou

Okamoto 1941: 98 (in Hypericaceae), Watanabe 1973: VII, Nakane 1986: 34.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Siberia, N. America.  
Kamitani, *M. Tagawa (1933 Jul.)*; Ashiu, *Y. Araki* 533.

*Hypericum erectum* Thunb.

Otogirisou

Okamoto 1941: 98 (in Hypericaceae), Watanabe 1973: VII, Nakane 1986: 34.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, S. Sakhalin.  
Nakanotsubo, *S. Yasuda et al.* 601; Kamitani, *Y. Araki* 532, *S. Yasuda et al.* 521; Nakayama, *S. Okamoto (1936 Sept.)*

*Hypericum pseudopetiolum* R. Keller

Sawaotogiri

New.  
Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu.)  
Sugou—Akasaki, *S. Yasuda*; Nanase, *Y. Araki* 618; Naisugitani, *S. Okamoto (1954 Oct.)*; Kamitani, *S. Okamoto (1936 Sept.)*; Choujidani, *K. Iwatsuki* 5485, *S. Yasuda et al.* 682; Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 17145; Ashiu, *G. Nakai* 5600.

*Sarothra laxa* (Blume) Y. Kimura

Kokeotogiri

New.  
Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), C. & S. Korea, N.E. China.  
Nakayama, *S. Okamoto (1940 Sept.)*; Choujidani, 600m, *G. Murata* 45603, *S. Yasuda* 731.

**Haloragaceae***Haloragis micrantha* (Thunb.) R. Br.

Arintougusa

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 33.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), China, Taiwan, Malaysia, Australia.  
Kamitani, *S. Yasuda et al.* 522; Choujidani, *G. Nakai* 5619; Mikunitouge, *M. Tagawa* 1758.

**Hamamelidaceae**

*Hamamelis japonica* Siebold et Zucc. var. *obtusata* Matsumura *Marubamansaku*  
 Okamoto 1930: 46 (as *H. japonica* Siebold et Zucc., "Mansaku"), Okamoto 1941: 46 (as *H. obtusata* Makino), Watanabe 1973: VI, Nakane 1986: 20, Yamanaka 1991: 9 (as *H. japonica* subsp. *obtusata* (Matsumura) Sugimoto).

Japan (S.W. Hokkaido [Oshima and Okushima Isl.], Honshu [the Japan-Sea side to Tottori.])  
 Some specimens (with an asterisk) have the intermediate forms between var. *japonica* and var. *obtusata*.

Haino, S. Okamoto (1934 Apr., Jul.)\*; Naisugitani, N. Yamanaka 3280; Kamitani, Y. Araki 685; Choujidani, K. Iwatsuki 5511; Choujidani—Mikunitouge, A. Nitta 12544\*; Sasari, S. Okamoto 12573, (1934 Apr.), (1934 Jul.), (1934 Oct.), S. Mitsuta et al. (1978 Jul.); Shuzan—Ashiu, S. Tanaka.

form. *incarnata* (Makino) Ohwi

*Nishikimansaku*

Okamoto 1941: 45 (as *H. flavo-purpurascens* Makino), Watanabe 1973: VI, Nakane 1986: 20, Yamanaka 1991: 9 (as *H. japonica* subsp. *obtusata* (Matsumura) Sugimoto f. *flavo-purpurascens* Makino).

Akasaki, S. Okamoto (1934 Jul.); Sasari, S. Okamoto 12578 (1934 Jul.)

**Hippocastanaceae**

*Aesculus turbinata* Blume

form. *turbinata*

*Tochinoki*

Okamoto 1930: 67, Okamoto 1941: 65, Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 18.

Japan (Hokkaido [north to Sapporo and Otaru], Honshu, Shikoku, Kyushu.)

Sugou—Koyomogi, ca. 400m, H. Nagamasu 2061; Makuratani, S. Yasuda 331; Chiimura, G. Koidzumi (1922 May); Ashiu, G. Nakai 3341, N. Yamanaka (1987 Jun.)

form. *pubescens* (Rehder) Ohwi

*Uragetochinoki*

New.

Japan (Hokkaido [north to Sapporo and Otaru], Honshu, Shikoku, Kyushu.)

Choujidani, ca. 600m, H. Takahashi 928; Sasari—Hacchourindou, 450-600m, S. Mimoro et al. 10395; Shimodani, S. Okamoto (1933 May), M. Tagawa 2049; Mt. Mikunidake, 680m, S. Tsugaru et al. 16256, 16257, 16673; Chiimura, Y. Araki (1933 Jul.); Ashiu, T. Horikawa 364.

**Icacinaceae**

*Hosiea japonica* (Makino) Makino

*Kurotakikazura*

Okamoto 1941: 61, Watanabe 1973: VII, Nakane 1986: 29, Yamanaka 1991: 16.

Japan (Honshu [east to N. Kinki Distr.], Shikoku, N. C. Kyushu.)

Sasari, S. Yasuda et al. 951.

**Juglandaceae**

*Juglans mandshurica* Maxim. var. *sachalinensis* (Miyabe et Kudo) Kitamura *Onigurumi*

Okamoto 1930: 32 (as *J. Sieboldiana* Maxim.), Okamoto 1941: 33 (as *J. Sieboldiana* Maxim.), Watanabe 1973: IV, Nakane 1986: 14, Yamanaka 1991: 3 (as *J. mandshurica* subsp. *Sieboldiana* (Maxim.) Kitamura).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Sakhalin.

Sugou—Kaduragoya, ca. 400m, M. Ito et al. 1283; Kamitani, S. Yasuda 369; Mt. Mikunidake, 670m, S. Tsugaru et al. 16258; Ashiu, G. Nakai 5615.

*Pterocarya rhoifolia* Siebold et Zucc.

*Sawagurumi*

Okamoto 1930: 32, Okamoto 1941: 32, Watanabe 1973: IV, Nakane 1986: 14, Yamanaka 1991: 3.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China (Shandong.)

Sugou—Kaduragoya, ca. 400m, M. Ito et al. 1292; Akasaki, M. Tagawa 2055, S. Okamoto (1934 May), (1936 May); Keyakizaka—Choujidani, A. Nitta 12539; Choujidani, 600m, M. Hotta 14869; Mt. Mikunidake, 670m, S. Tsugaru et al. 16337, 16363, 680m, 16254; Ashiu, T. Horikawa 83, G. Murata 3319.

**Labiatae**

- Ajuga decumbens* Thunb. Kiransou, Jigokunokamanofuta  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Honshu, Shikoku, Kyushu), Korea, China.  
 Haino, *S. Okamoto* (1937 Apr.); Suberidani, *S. Yasuda* 127; Sasari, 600m, *Y. Inamasu* 46.
- Ajuga yezoensis* Maxim. Nishikigoromo  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (mainly the Japan-Sea side of Hokkaido, Honshu, and Kyushu.)  
 Ashiu, *G. Murata* 7066.
- Chelonopsis moschata* Miq. Jakousou  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku.)  
 Nakanotsubo, *S. Yasuda et al.* 603; Hitsukuradani, *S. Yasuda et al.* 647; Mt. Mikunidake, ca. 400m,  
*N. Kurosaki* 11943.
- Clinopodium chinense* (Benth.) O. Kuntze subsp. *grandiflorum* (Maxim.) Hara var. *parviflorum* (Kudo)  
 Hara Kurumabana  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea.  
 Sugou—Akasaki, *S. Yasuda* 623; Naisugidani, *S. Okamoto* 11875; Kamitani, *M. Tagawa* (1933 Jul.);  
 Choujidani, *N. Yamanaka* 3251; Chiimura, *G. Koidzumi* (1921 Aug.)
- Clinopodium gracile* (Benth.) O. Kuntze Toubana  
 Okamoto 1941: 101 (as *C. conifine* O. Kuntze), Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, China, Taiwan, Malaysia, India.  
 Hitsukuradani, *S. Yasuda* 1021; Jizoutouge—Nakayama—Sugiotouge, 670m, *S. Tsugaru et al.* 17129.
- Clinopodium micranthum* (Regel) Hara Inutoubana  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu.)  
 Choujidani, *G. Nakai* 5617, *K. Iwatsuki* 5493.
- Clinopodium multicaule* (Maxim.) O. Kuntze Yamatoubana  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu), Korea.  
 Sugou—Akasaki, *S. Yasuda* 443; Hitsukuradani, *S. Yasuda et al.* 550, 646, 1022; Sasari, *S. Okamoto*  
 (1936 Jul.); Onokodani, *S. Okamoto* (1935 Jul.)
- Clinopodium sachalinense* (Fr. Schm.) Koidz. Miyamatoubana  
 Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (Hokkaido, Honshu [south to Kinki Distr.], Kurils, Sakhalin.  
 Sugou—Akasaki, *S. Yasuda* 401, 626; Hitsukuradani, *S. Yasuda et al.* 459, 549; Shimodani, *S.*  
*Okamoto* (1940 Sept.); Choujidani, *G. Nakai* 5618.
- Elsholtzia ciliata* (Thunb.) Hylander Naginatakouju  
 Okamoto 1941: 101 (as *E. Patrini* Garcke), Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of Asia.  
 Nakayama, *N. Yamanaka* 3245; Nanaserindo, *S. Yasuda* 1092.
- Glechoma hederacea* L. subsp. *grandis* (A. Gray) Hara Kakidoushi  
 Okamoto 1941: 102 (as *Nepeta Glechoma* Benth.), Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, E. Siberia.  
 Sugou—Haino, *S. Yasuda* 905; Hitsukuradani, *S. Yasuda* 154, 155, 156.
- Leucosceptrum japonicum* (Miq.) Kitam. et Murata Tenninsou  
 Okamoto 1941: 101 (as *Comanthosphace sublanceolata* S. Moore), Watanabe 1973: IX, Nakane 1986:  
 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu.)  
 No specimen. (But there is a specimen of a hybrid between *L. japonicum* and *L. stellipilum* : Mt.  
 Mikunidake, 690m, *S. Tsugaru et al.* 17128.)

- Leucosceptrum stellipilum* (Miq.) Kitam. et Murata Mikaerisou  
 Okamoto 1941: 83 (as *Comanthosphace stellipilla* S. Moore), Watanabe 1973: IX, Nakane 1986: 46, Yamanaka 1991: 27 (as *L. stellipilum* (Miq.) Kitamura et Murata).  
 Japan (Honshu [east to Fukui])  
 Kaduradani, S. Yasuda 766; Hitsukuradani, S. Yasuda 727; Sasari, S. Okamoto (1936 Sept.)
- Lycopus ramosissimus* Makino var. *japonicus* (Matsum. et Kudo) Kitam. Koshirone  
 Okamoto 1941: 102 (as *L. coreanus* Lév.), Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
 Nakayama, S. Okamoto (1936 Sept.); Nodabata, S. Yasuda 770; Ashiu, S. Okamoto (1931 Aug.)
- Meehania urticifolia* (Miq.) Makino Rashoumonkazura  
 Okamoto 1941: 102, Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Honshu, Shikoku, Kyushu), Korea, China, Ussurie.  
 Sugou, S. Okamoto (1936 May); Mt. Mikunidake, 640m, S. Tsugaru et al. 16237; Sasari, G. Murata 7030; Ashiu, M. Hiroe 12165, 400m, Y. Inamasu 21.
- Prunella vulgaris* L. subsp. *asiatica* (Nakai) Hara Utsubogusa  
 Okamoto 1941: 102 (as *P. asiatica* Nakai), Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.) Spread in the temperate regions of E. Asia.  
 Sugou, S. Okamoto (1936 Jul.); Koyomogi, S. Yasuda 496; Ashiu, S. Okamoto (1936 Jul.), (1953 Jul.)
- Rabdosia inflexa* (Thunb.) Hara Yamahakka  
 Okamoto 1941: 101 (as *Amethystanthus inflexus* Nakai), Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
 No specimen.
- Rabdosia japonica* (Burm.) Hara Hikiokoshi  
 Okamoto 1941: 101 (as *Amethystanthus japonicus* Nakai), Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea.  
 No specimen.
- Rabdosia longituba* (Miq.) Hara Akichouji  
 Okamoto 1941: 101 (as *Amethystanthus longitubus* Nakai), Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (Honshu [east to Gifu], Shikoku, Kyushu.)  
 Sugou—Akasaki, S. Yasuda 625; Nakanotsubo, S. Yasuda et al. 625; Nakayama, S. Okamoto (1940 Sept.); Chiimura, G. Koidzumi (1921 Aug.); Ashiu, S. Okamoto (1940 Sept.), (1954 Oct.)
- Rabdosia shikokiana* (Makino) Hara var. *occidentalis* (Murata) Hara San'inhiokiokoshi  
 New.  
 Japan (Honshu [W. Hokuriku Distr. and San'in Distr.], N. Kyushu)  
 Mt. Mikunidake, 700m, S. Tsugaru et al. 17125.
- Rabdosia trichocarpa* (Maxim.) Hara Kurobanahikiokoshi  
 Okamoto 1941: 101 (as *Amethystanthus trichocarpus* Nakai), Watanabe 1973: IX, Nakane 1986: 45.  
 Japan (Hokkaido, Honshu [the Japan-Sea side])  
 Nakayama, S. Okamoto (1928 Oct.); Choujidani, S. Yasuda 735; Jizoutouge—Nakayama—Sugiotouge, 660m, S. Tsugaru et al. 17130; Ashiu, G. Koidzumi (1921 Aug.)
- Salvia glabrescens* Makino Akigiri  
 Watanabe 1973: IX, Nakane 1986: 46.  
 Japan (Honshu [from Chubu to Kinki Distr.])  
 Nayasukedani (= Naisugidani), S. Okamoto (1940 Sept.); Hitsukuradani, S. Okamoto (1936 Sept.), S. Yasuda 645; Nakayama, S. Okamoto (1936 Oct.); Kamitani, M. Ito 3583; Jizoutouge—Nakayama—Sugiotouge, 650m, S. Tsugaru et al. 16814, 660m, 17126; Ashiu, G. Nakai 5596.
- Scutellaria muramatsui* Hara Dewanotatsunamisou  
 New.  
 Japan (Honshu [the Japan-Sea side south to Kinki Distr.])  
 Ootani, S. Okamoto (1934 Jul.); Hitsukuradani, S. Yasuda 383, 417, 1023; Naisugidani, S. Okamoto (1936 Sept.); Sukendani, S. Yasuda 800; Kamitani, S. Yasuda et al. 1002; Choujidani, K. Iwatsuki

5520; Mt. Mikunidake, 690m, *S. Tsugaru et al.* 16362; Sasari, *S. Yasuda et al.* 984; Sasari—Hacchourindou, 450-600m, *S. Mimoro et al.* 10390; Ashiu, *G. Nakai* 3316.

*Scutellaria peginensis* Maxim. var. *transitra* (Makino) Hara *Yamatatsunamisou*  
Okamoto 1941: 102 (as *S. japonica* Morr. et Decne, "Yamatatsunami"), Watanabe 1973: IX, Nakane 1986: 46.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.  
No specimen.

*Teucrium viscidum* Blume var. *miquelianum* (Maxim.) Hara *Tsurunigakusa*  
Okamoto 1941: 102, Watanabe 1973: IX, Nakane 1986: 46.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, Taiwan, India, Malaysia.  
No specimen.

### Lardizabalaceae

*Akebia ×pentaphylla* Makino *Goyouakebi*  
Okamoto 1930: 40, Okamoto 1941: 40, Watanabe 1973: V, Nakane 1986: 17, Yamanaka 1991: 7.  
Japan (Honshu, Shikoku, Kyushu.)  
Hybrid between *A. quinata* and *A. trifoliata*.  
Iguri—Haino, *T. Ohtomo* 222 (Herb. Ashiu).

*Akebia quinata* (Thunb.) Decne. *Akebi*  
Okamoto 1930: 41, Okamoto 1941: 40, Watanabe 1973: V, Nakane 1986: 17, Yamanaka 1991: 7.  
Japan (Honshu, Shikoku, Kyushu), Korea, China.  
Hitsukuradani, *S. Yasuda* 160; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16241.

*Akebia trifoliata* (Thunb.) Koidz. *Mitsubaakebi*  
Okamoto 1930: 40 (as *A. lobata* Decne.), Okamoto 1941: 40, Watanabe 1973: V, Nakane 1986: 17, Yamanaka 1991: 7.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), China.  
Sugou, *S. Yasuda et al.* 882.

### Lauraceae

*Lindera erythrocarpa* Makino *Kanakuginoki*  
Okamoto 1930: 43 (as *L. Thunbergii* Makino), Okamoto 1941: 42 (as *Benzoin Thunbergii* S. et Z.), Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 8.  
Japan (Honshu [east to Hakone], Shikoku, Kyushu), Korea, China.  
Mt. Mikunidake, 650m, *S. Tsugaru et al.* 11253.

*Lindera glauca* (Siebold et Zucc.) Blume *Yamakoubashi*  
Okamoto 1930: 44, Okamoto 1941: 42 (as *Benzoin glaucum* S. et Z.), Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 8.  
Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), Korea, China, Taiwan.  
Chiimura, *G. Koidzumi* (1922 May).

*Lindera obtusiloba* Blume *Dankoubai*  
Okamoto 1930: 43, Okamoto 1941: 42 (as *Benzoin obtusilobum* O. Kuntze), Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 8.  
Japan (Honshu [east to Kanto and Niigata Distr.], Shikoku, Kyushu), Korea, China.  
Sugou, *N. Yamanaka* 3281; Sugou—Akasaki, *S. Yasuda et al.* 199, 1034; Naisugidani, *S. Okamoto* (1934 Apr.); Ashiu, *G. Koidzumi* (1921 Aug.)

*Lindera sericea* (Siebold et Zucc.) var. *glabrata* Blume *Usugekuromoji*  
Yamanaka 1991: 8.  
Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)  
Sugou, *S. Yasuda et al.* 884; Choujidani, *G. Koidzumi* (1922 May).

*Lindera triloba* (Siebold et Zucc.) Blume *Shiromoji*  
Okamoto 1930: 43 (as *L. triloba* Blume), Okamoto 1941: 43 (as *Parabenzoin trilobum* Nakai), Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 8.  
Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu), China.

Iwatani—Mt. Mikunidake, *N. Yamanaka* 3320; Chiimura, *G. Koidzumi* (1921 Aug.)

*Lindera umbellata* Thunb.

var. *umbellata*

*Kuromoji*

Okamoto 1930: 42, Okamoto 1941: 43 (as *Benzoin umbellatum* Rehd.), Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 8.

Japan (Honshu [east to Kanto and Chubu Distr.], Shikoku, Kyushu), China.

Sugou—Koyomogi, *S. Yasuda* 65; Hitsukuradani, *S. Yasuda* 88, 158; Sukendani, *S. Yasuda et al.* 569; Choujidani—Mikunitouge, ca. 600-800m, *K. Ueda et al.* 538, *S. Yasuda et al.* 854; Jizoutouge—Nakayama—Sugiotouge, 720m, *S. Tsugaru et al.* 17120; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *G. Koidzumi* (1922 May), *G. Murata* 7064, 400m, *Y. Inamasu* 1.

var. *membranacea* (Maxim.) Momiyama

*Oobakuromoji*

Okamoto 1941: 42 (as *Benzoin membranaceum* O. Kuntze), Watanabe 1973: V, Nakane 1986: 18. Japan (Hokkaido [Oshima Pen.], Honshu.)

Haino—Nanase, *Ohtomo* 241 (Herb. Ashiu).

*Neolitsea sericea* (Bl.) Koidz.

*Shiroadamo*

Okamoto 1941: 43 (as *N. Koidzumii* Kamik., Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 8.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, China, Taiwan.

Ashiu, *G. Koidzumi* (1921 Aug.)

**Leguminosae**

*Albizia julibrissin* Durazz.

*Nemunoki*

Okamoto 1930: 53, Okamoto 1941: 51 (as *A. Julibrissin* Durazz. var. *speciosa* Koidz.), Watanabe 1973: VI, Nakane 1986: 23, Yamanaka 1991: 12.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, S.E. Asia.

Ashiu, *S. Yasuda et al.* 592.

*Amphicarpaea bracteata* (L.) Fernald subsp. *edgeworthii* (Benth.) Ohashi var. *japonica* (Oliver) Ohashi

*Yabumame*

Okamoto 1941: 97 (as *A. trisperma* Baker), Nakane 1986: 23.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou, *T. Ohtomo* 255 (Herb. Ashiu).

*Apios fortunei* Maxim.

*Hodoimo*

Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 22.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China.

Hitsukura, *S. Miyake et al.* 257 (Herb. Ashiu).

*Astragalus sinicus* L.

*Genge, Rengesou*

Watanabe 1973: VI, Nakane 1986: 23.

Naturalized. China, Taiwan.

No specimen.

*Cassia mimosoides* L. subsp. *nomame* (Siebold) Ohashi

*Kawaraketsumei*

Okamoto 1941: 97 (as *C. nomame* Honda), Watanabe 1973: VI, Nakane 1986: 23.

Japan (Honshu, Shikoku, Kyushu), Korea, N.E. & E. China.

No specimen.

*Cladrastis platycarpa* Makino

*Fujiki*

Okamoto 1930: 54, Okamoto 1941: 52, Watanabe 1973: VI, Nakane 1986: 22, Yamanaka 1991: 12.

Japan (C. & W. Honshu, Shikoku.)

Mt. Mikunidake, *G. Koidzumi* (1921 Aug.)

*Cladrastis shikokiana* (Makino) Makino

*Yukunoki, Miyamafujiki*

Okamoto 1930: 54, Okamoto 1941: 52, Watanabe 1973: VI, Nakane 1986: 23, Yamanaka 1991: 12.

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)

Naisugidani, S. Yasuda et al. 872; Mt. Mikunidake, G. Koidzumi (1921 Aug.); Sasari—Haino, S. Yasuda et al. 972.

*Desmodium oldhamii* Oliver

Fujikanzou

Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 22.

Japan (Honshu, Shikoku, Kyushu), Korea, E. & N.E. China, Ussurie.

Naisugidani, S. Okamoto (1936 Sept.); Chiimura, G. Koidzumi (1921 Aug.)

*Desmodium paniculatum* (L.) DC.

Arechinonsubitohagi

Watanabe 1973: XI.

Naturalized partly from Kinki to Tokai distr. Native to N. America.

Found first in Osaka in 1940. Native to North America. Partly common mainly from Kinki District to Tokai District.

No specimen.

*Desmodium podocarpum* DC.

subsp. *podocarpum* var. *mandshuricum* Maxim.

Yabuhagi

Okamoto 1941: 97 (as *D. fallax* Schindl. var. *dilatatum* Nakai), Watanabe 1973: VI, Nakane 1986: 23.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N. & N.E. China, Ussurie, Himalaya.

Sugou—Akasaki, S. Yasuda 615; Jizoutouge—Nakayama—Sugiotouge, 650m, S. Tsugaru et al. 16798.

subsp. *oxyphyllum* (DC.) Ohashi

Nusubitohagi

Okamoto 1941: 97 (as *D. racemosum* DC.), Watanabe 1973: VI, Nakane 1986: 22.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Himalaya, Myanmar.

Jizoutouge—Nakayama—Sugiotouge, 650m, S. Tsugaru et al. 16799; Jizoutouge, S. Yasuda et al. 686.

*Dumasia truncata* Siebold et Zucc.

Nosasage

Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 22.

Japan (Honshu, Kyushu.)

Naisugidani, S. Okamoto (1940 Sept.); Kamitani, S. Yasuda 793; Makuratani, S. Yasuda 1063.

*Indigofera decora* Lindl.

Niwafuji

New.

Japan (Honshu [Chubu and Kinki Distr.], Shikoku, Kyushu), China, Taiwan.

Chiimura, G. Koidzumi (1921 Aug.)

*Lespedeza bicolor* Turcz.

Yamahagi

Okamoto 1930: 54, Okamoto 1941: 52 (as *L. bicolor* Turcz. var. *japonica* Nakai), Watanabe 1973: VI, Nakane 1986: 22, Yamanaka 1991: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.

No specimen.

*Lespedeza cyrtobotrya* Miq.

Marubahagi

Okamoto 1941: 52, Watanabe 1973: VI, Nakane 1986: 22, Yamanaka 1991: 13.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Choujidani—Mikunitouge, S. Yasuda 680.

*Lespedeza japonica* Bailey form. *angustifolia* (Nakai) Murata

Nishikihagi

New.

Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu), Korea, China.

Sugou, S. Okamoto (1936 Sept.), (1940 Sept.); Sugou—Nanase, S. Yasuda 1181; Ashiu, S. Okamoto (1936 Sept.)

*Lespedeza juncea* (L. fil.) Pers. var. *subsessilis* Miq.

Medohagi

Okamoto 1930: 55 (as *L. sericea* Miq.), Okamoto 1941: 52 (as *L. cuneata* D. Don), Watanabe 1973: VI, Nakane 1986: 22.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Himalaya, Malaysia, Afghanistan, Australia.

Sugou, S. Okamoto (1951 Aug.)



- Lespedeza pilosa* (Thunb.) Siebold et Zucc. Nekohagi  
New.  
Japan (Honshu, Shikoku, Kyushu), Korea, China.  
Sugou, *T. Ohtomo* 253 (Herb. Ashiu).
- Lespedeza striata* (Thunb.) Hook. et Arn. Yahazusou  
Okamoto 1941: 97 (as *Kummerowia striata* Schindler), Watanabe 1973: VI, Nakane 1986: 22.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Ussurie, Amur.  
Naturalized in N. America.  
Yusen, *M. Andoh* (1982 Aug.) (Herb. Ashiu).
- Lotus corniculatus* L. var. *japonicus* Regel Miyakogusa  
Watanabe 1973: VI.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Himalaya, Europe.  
Naturalized in N. America.  
Sasari, *H. Koyama* 926.
- Maackia floribunda* (Miq.) Takeda Hanemiinuenju  
Okamoto 1941: 53 (as *M. floribunda* Takeda var. *pubescens* Koidz.. "Kehanemiinuenju"), Watanabe 1973: VI, Nakane 1986: 23, Yamanaka 1991: 13.  
Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu.)  
Ashiu, *S. Okamoto* (1940 Oct.)
- Pueraria lobata* (Willd.) Ohwi Kuzu  
Okamoto 1941: 53 (as *P. Thunbergiana* Benth.), Watanabe 1973: VI, Nakane 1986: 23.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Amami Ohshima Isl.), Korea, China, Taiwan, Philippines, Indonesia, New Guinea, Ussurie. Naturalized in Ryukyus and N. America.  
Sugou, *S. Yasuda* 662.
- Trifolium repens* L. Shirotsunekusa  
Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 23.  
Naturalized. Native to Europe.  
Likely to have been introduced as pasture and naturalized. Native to Europe.  
Sugou—Akasaki, *S. Yasuda* 398.
- Vicia venosa* (Willd.) Maxim. var. *cuspidata* Maxim. Ebirafuji  
New.  
Japan (Honshu [the Japan-Sea side from Yamagata to Kyoto.], Kyushu [rarely])  
Chiimura, *G. Koidzumi* (1922 May).
- Wisteria floribunda* (Willd.) DC. Fuji  
Okamoto 1930: 55 (as *Kraunhia floribunda* Taub. var. *typica* Makino), Okamoto 1941: 53, Watanabe 1973: VI, Nakane 1986: 23, Yamanaka 1991: 13.  
Japan (Honshu, Shikoku, Kyushu.)  
Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1290; Kamitani, *S. Yasuda* 373; Sasari—Ashiu, 600-900m, *G. Murata et al.* 33.
- Lentibulariaceae**
- Utricularia multispinosa* (Miki) Miki Himetanukimo  
Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 46.  
Japan (Hokkaido, Honshu), Kurils.  
No specimen.
- Loranthaceae**
- Viscum album* L. subsp. *coloratum* Komarov Yadorigi  
form. *lutescens* (Makino) Hara  
Okamoto 1930: 39 (as *V. album* L. var. *lutescens* Makino), Okamoto 1941: 38 (as *V. coloratum* Nakai var. *lutescens* Miyabe et Kudo), Watanabe 1973: IV, Nakane 1986: 12, Yamanaka 1991: 6 (as *V. album* var. *rubro-aurantiacum* f. *lutescens* (Makino) Hara).  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, Ussurie.  
Sugiotouge, *S. Yasuda et al.* 593; Makuratani, *K. Ueda* 8.

form. *rubroauranticum* (Makino) Ohwi

*Akamiyadorigi*

Okamoto 1941: 38 (as *V. coloratum* Nakai var. *rubro-aurantiacum* Miyabe et Kudo), Watanabe 1973: IV, Nakane 1986: 12, Yamanaka 1991: 6 (as *V. album* var. *rubro-aurantiacum* f. *rubroaurantiacum*). Mt. Mikunidake, 500-900m, *N. Kurosaki 11917*; Sasari, ca. 800m, *T. Takagi (1983 Dec.)*, *G. Murata et al. 1*.

### Lythraceae

*Lythrum anceps* (Koehne) Makino

*Misohagi*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 36.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Kamitani, *M. Tagawa 1737*; Choujidani, *K. Iwatsuki 5506*, *S. Yasuda et al. 685*.

*Rotala indica* (Willd.) Koehne var. *uliginosa* (Miq.) Koehne

*Kikashigusa*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 36.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, N.E. China, Taiwan, Amur, Indochina, Malaysia.

Sugou, *S. Okamoto (1936 Sept.)*

*Rotala pusilla* Tulasne

*Mizumatsuba*

Okamoto 1941: 99 (as *R. mexicana* Cham. et Schl. var. *Spruceana* Koehne), Watanabe 1973: VIII, Nakane 1986: 36.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Philippines, India, Caucasus, C. Asia, Africa. Widespread in the warm regions of the world.

No specimen.

### Magnoliaceae

*Magnolia obovata* Thunb.

*Hoonoki*

Okamoto 1930: 41 (as *M. hypoleuca* S. et Z.), Okamoto 1941: 41, Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 7.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, China.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al. 1265*; Kamidani, *M. Ito 3501*.

*Magnolia salicifolia* Maxim.

*Tamushiba*

Okamoto 1930: 42, Okamoto 1941: 41, Watanabe 1973: V, Nakane 1986: 18, Yamanaka 1991: 7. Japan (Honshu, Shikoku, Kyushu.)

Kamitani, *S. Okamoto (1926 Jul.)*; Bunanokitouge—Nakayama, *S. Yasuda 914*; Choujidani—Mikunitouge, ca. 800m, *K. Ueda et al. 537*; Jizoutouge—Choujidani, 620-880m, *S. Fujii 2696*; Mt. Mikunidake, 950m, *K. Tsuchiya (1980 May)*; Chiimura, *G. Koidzumi (1922 May)*; Ashiu, *Z. Tashiro (1933 May)*, *S. Okamoto (1936 May)*, *A. Nitta 12505*.

### Menispermaceae

*Cocculus trilobus* (Thunb.) DC.

*Aotsudurafuji*

Okamoto 1930: 41, Okamoto 1941: 40, Watanabe 1973: V, Nakane 1986: 17, Yamanaka 1991: 7.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyu), Korea, China, Taiwan, Philippines, India.

Sugou—Kaduradani, *N. Yamanaka 3300*, *S. Yasuda 718*.

*Menispermum dauricum* DC.

*Koumorikadura*

Okamoto 1941: 95, Watanabe 1973: V, Nakane 1986: 17, Yamanaka 1991: 7.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N. & N.E. China, Amur, Ussurie, E. Siberia.

Kamitani, *S. Okamoto (1935 Jul.)*; Chiimura, *G. Koidzumi (1922 May)*.

*Sinomenium acutum* (Thunb.) Rehd. et Wils.

*Tsudurafuji, Ootsudurafuji*

Okamoto 1941: 41, Watanabe 1973: V, Nakane 1986: 17, Yamanaka 1991: 7.

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu, Ryukyus), China, Taiwan.

Koyomogi, *N. Yamanaka 3305*.

### Molluginaceae

*Mollugo pentaphylla* L.

*Zakurosou*

New.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), China, Malaysia, India.  
Sugou, *M. Andoh* 488 (Herb. Ashiu).

### Moraceae

*Broussonetia kazinoki* Siebold

*Himekouzo*

Okamoto 1930: 38 (as "Kouzo"), Okamoto 1941: 37 (as "Kouzo"), Watanabe 1973: IV (as "Kouzo"), Nakane 1986: 11 (as "Kouzo"), Yamanaka 1991: 5.

Japan (Honshu [north to Iwate], Shikoku, Kyushu [to Amami ohshima Isl.]), Korea, S. C. China. Okamoto uses the Japanese name of "Kouzo" for *Broussonetia kazinoki*. But "Kouzo" is now the name for hybrid between *B. kazinoki* and *B. papyrifera*. Watanabe and Nakane seem to follow Okamoto by mistake.

Sugou, *S. Okamoto* (1935 Jul.), *S. Yasuda et al.* 867; Sugou—Haino, *S. Yasuda* 904; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1270; Naisugitani, *N. Yamanaka* 3120; Sasari—Haino, *S. Yasuda et al.* 953; Ashiu, *A. Nitta* 12513.

*Fatoua villosa* (Thunb.) Nakai

*Kuwakusa*

Okamoto 1941: 92, Watanabe 1973: IV.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Sugou, *S. Yasuda* 751.

*Humulus japonicus* Siebold et Zucc.

*Kanamugura*

Watanabe 1973: IV, Nakane 1986: 11.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Amami Ohshima Isl.), Korea, China, Taiwan, Amur, Ussurie.

No specimen.

*Morus australis* Poir.

*Yamaguwa*

Okamoto 1941: 37 (as *M. bombycis* Koidz.), Watanabe 1973: IV, Nakane 1986: 11, Yamanaka 1991: 5.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, China, Sakhalin, Indochina Pen., India, Himalaya.

Sugou—Haino, *S. Yasuda* 903.

### Myrsinaceae

*Ardisia japonica* (Thunb.) Blume

*Yabukouji*

Okamoto 1930: 83 (as *Bladhia japonica* Thunb. in Ardisiaceae), Okamoto 1941: 79 (as *Bladhia japonica* Thunb. in Ardisiaceae), Watanabe 1973: VIII, Nakane 1986: 38, Yamanaka 1991: 25.

Japan (Hokkaido [Okushiri Isl.], Honshu, Shikoku, Kyushu), Korea, China, Taiwan.

Hitsukuradani, *S. Yasuda et al.* 451, 556; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 518; Makuratani, *S. Yasuda et al.* 679; Ashiu, *G. Koidzumi* (1921 Aug.)

### Nymphaeaceae

*Nymphaea tetragona* Georgi

*Hitsujigusa*

Okamoto 1941: 94 (as *N. japono-koreana* Nakai), Watanabe 1973: V, Nakane 1986: 14.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in Europe, Siberia, E. Asia, N. India, and N. America.

Mikunitouge, *M. Tagawa* (1933 Jul.)

### Oleaceae

*Fraxinus lanuginosa* Koidz. form. *serrata* (Nakai) Murata

*Aodamo, Kobanotoneriko*

Okamoto 1930: 85 (as *F. Sieboldiana* Blume var. *serrata* Nakai), Watanabe 1973: IX, Nakane 1986: 42.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Kasa, *S. Okamoto* (1936 Jul.), *S. Yasuda* 935; Makuratani, *N. Yamanaka* 3211; Ashiu, *S. Okamoto* (1927 Jun.), (1932 Jun.), (1949 Jul.), *G. Nakai* 3338.

*Fraxinus longicuspis* Siebold et Zucc.

var. *longicuspis*

*Yamatoaodamo*

Okamoto 1941: 81, Watanabe 1973: IX, Nakane 1986: 42, Yamanaka 1991: 26.

Japan (Hokkaido [Okushiri Isl.], Honshu, Shikoku, Kyushu.)

Sugou, *M. Tagawa* 2288; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1250; Kadura, *M. Tagawa*, 2289, *S. Okamoto* 2289; Hitsukuradani, *N. Yamanaka* 3233.

var. *latifolia* Nakai

*Tsukushitoneriko, Uragetoneriko*

New.

Japan (Honshu, Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 1035; Ashiu, *D. Numata* (1924 Jul.), *S. Okamoto* (1926 Oct.)

*Fraxinus sieboldiana* Blume

*Marubaaodamo, Hosobaaodamo*

Okamoto 1941: 81 (as *F. Sieboldiana* Blume var. *angustata* Blume), Watanabe 1973: IX, Nakane 1986: 42, Yamanaka 1991: 26.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China.

Makuratani, *S. Okamoto* (1930 Jul.); Sasari, 400m, *Y. Inamasu* 26; Ashiu, *S. Okamoto* (1927 Jun.), *G. Nakai* 5612, *G. Murata* 7047.

*Ligustrum obtusifolium* Siebold et Zucc.

*Ibotanoki*

Okamoto 1930: 86 (as *L. Ibo* Siebold var. *angustifolium* Blume), Okamoto 1941: 82, Watanabe 1973: IX, Nakane 1986: 42, Yamanaka 1991: 26.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Ashiu, *D. Numata* (1924).

*Ligustrum tschonoskii* Decne.

*Miyamaibota*

Okamoto 1930: 86 (as "Okuibota"), Okamoto 1941: 82 (as "Okuibota"), Watanabe 1973: IX, Nakane 1986: 42, Yamanaka 1991: 26.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Sakhalin.

Sugou—Akasaki, *S. Yasuda* 438; Hitsukuradani, *S. Yasuda et al.* 423; Shimodani, *S. Okamoto* (1940 Sept.); Jizoutouge—Nakayama—Sugiotouge, 680m, *S. Tsugaru et al.* 17115; Mt. Mikunidake, *S. Tsugaru et al.* 16349; Ashiu, *G. Nakai* 3333, *S. Okamoto* (1949 Jul.), *S. Okamoto* (1935 Jul.)

## Onagraceae

*Circaea erubescens* Franch. et Sav.

*Tanitade*

Okamoto 1941: 99, Watanabe 1973: VIII (as "Tachitade"), Nakane 1986: 36.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, Taiwan.

Sugou—Nanase, *S. Yasuda* 658; Nakanotsubo, *S. Yasuda et al.* 602; Keyakizaka, *Y. Araki* 476; Naisugidani (= Naisugidani), *S. Okamoto* (s. n.); Kamitani, *S. Okamoto* (1936 Sept.); Choujidani—Hitsukuradani or Nayasukedani—Ashiu, *A. Nitta* 12586; Makuratani, *S. Yasuda* 1062; Ashiu, *T. Horikawa et al.* 5590.

*Circaea mollis* Siebold et Zucc.

*Mizutamasou*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 36.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Indochina.

Sugou—Nanase, *S. Yasuda* 657; Naisugidani, *S. Okamoto* (1936 Sept.); Kamitani, *M. Ito* 3586; Choujidani, *K. Iwatsuki* 5521; Chiimura, *G. Koidzumi* (1921 Aug.)

*Epilobium pyrricholophum* Franch. et Sav.

*Akabana*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 36.

Japan (Hokkaido [Oshima Pen.], Honshu, Shikoku, Kyushu), Kurils, Korea, China, Sakhalin.

Some specimens are identified as var. *curvatopilosum* Hara by *S. Tsugaru*.

Naisugitani, *N. Yamanaka* 3248; Nakayama, *S. Okamoto* (1936 Sept.), (1940 Sept.); Choujidani, *S. Yasuda et al.* 684; Mt. Mikunidake, *S. Tsugaru et al.* 17146.

*Ludwigia epilobioides* Maxim.

*Choujitade*

Okamoto 1941: 99 (as *L. prostrata* Roxb.), Watanabe 1973: VIII, Nakane 1986: 36.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Amur, Ussurie, S.E. Asia, India.

No specimen.

## Orobanchaceae

*Aeginetia indica* L.

*Nanbangiseru*

Okamoto 1941: 103 (as *A. indica* L. var. *gracilis* Nakai), Watanabe 1973: IX (in "Gomanohagusa-

ka"), Nakane 1986: 46.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. C. China, Taiwan, Indochina, Malaysia, India.

No specimen. (There is a specimen taken in Oisugi, near Jizoutouge, *Anonymous* (Herb. Ashiu)).

*Phacellanthus tubiflorus* Siebold et Zucc.

*Kiyosumiutsubo*

Okamoto 1941: 103, Watanabe 1973: IX (in "Gomanohagusa-ka"; Scrophulariaceae), Nakane 1986: 46.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. & N.C. China, Sakhalin, Ussurie.

Ashiu, *T. Fujiwara* (1975 Jun.)

### Oxalidaceae

*Oxalis corniculata* L.

form. *corniculata*

*Katabami*

Okamoto 1941: 97 (as *Xanthoxalis corniculata* Small and *X. corniculata* Small var. *erecta* Hatusima et Nakasima, "Tachikatabami"), Watanabe 1973: VI, Nakane 1986: 28.

Widespread in the warm and tropical regions of the world.

Sugou—Akasaki, *S. Yasuda* 618.

form. *tropaeoloides* (Schlacht.) R. Knuth

*Usuakatabami*

Okamoto 1941: 97 (as *Xanthoxalis corniculata* Small. var. *atropurpurea* Mold).

No specimen.

*Oxalis griffithii* Edgew. et Hook. fil.

*Miyamakatabami*

Okamoto 1941: 97 (as *O. Acetosella* L. var. *japonica* Makino), Watanabe 1973: VI, Nakane 1986: 28.

Japan (Honshu [from S. Tohoku Distr. to Chugoku], Shikoku), China, Taiwan, Himalaya.

Sugou—Koyomogi, *S. Yasuda et al.* 81, 816; Choujidani, *K. Iwatsuki* 5517; Jizoutouge—Nakayama—Sugiotouge, 760m, *S. Tsugaru et al.* 17147.

### Paeoniaceae

*Paeonia japonica* (Makino) Miyabe et Takeda

*Yamashakuyaku*

Okamoto 1941: 95, Watanabe 1973: V (in "Kinpouge-ka"; Ranunculaceae), Nakane 1986: 16 (in "Kinpouge-ka"; Ranunculaceae).

Japan (Honshu [east to Kanto and Chubu Distr.], Shikoku, Kyushu), Korea.

Ashiu, *G. Murata* 7080.

### Papaveraceae

*Chelidonium majus* L. var. *asiaticum* (Hara) Ohwi.

*Kusanoou*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Spread in the temperate regions of E. Asia.

Sugou—Haino, *S. Yasuda* 1068.

*Corydalis incisa* (Thunb.) Pers.

*Murasakikeman*

Okamoto 1941: 95 (in Fumariaceae), Watanabe 1973: V, Nakane 1986: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), China, Taiwan.

Sugou—Akasaki, *S. Yasuda* 210; Hitsukuradani, *S. Yasuda et al.* 415; Ashiu, 400m, *Y. Inamasu* 2.

*Corydalis lineariloba* Siebold et Zucc.

var. *capillaris* Ohwi

*Himeengosaku*

Okamoto 1941: 95 (in Fumariaceae), Watanabe 1973: V, Nakane 1986: 19.

Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu.)

Sugou—Koyomogi, *S. Yasuda* 11; Kamitani, *T. Fukuhara* 653; Nodabata (transplanted to Kyoto Univ.), *T. Fukuhara* 198; Sasari, *K. Iwatsuki* (1954 May); Ashiu, *S. Okamoto* (1936 May).

var. *papilligera* Ohwi

*Kinkiengosaku*

New.

Japan (Honshu [Kinki Distr.])

Sugou—Koyomogi, *S. Yasuda* 58; Kamitani, *S. Yasuda* 146; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 523; Sasari, *S. Okamoto* (1936 May); Ashiu, *Z. Tashiro* (1933 May), *S. Okamoto* (1936 May).

*Corydalis pallida* (Thunb.) Pers. var. *tenuis* Yatabe Miyamakikeman  
Okamoto 1941: 95 (as *C. hondoensis* Ohwi), Watanabe 1973: V, Nakane 1986: 19.  
Japan (Honshu [west to Kinki Distr.])  
Sugou—Nanase, *S. Yasuda* 48, 210; Hitsukuradani, *S. Yasuda et al.* 415; Shimodani, *S. Okamoto* (1937 May); Nadabata, *T. Fukuhara* 689.

*Macleaya cordata* (Willd.) R. Br. Takenigusa, Chanpagiku  
Watanabe 1973: V, Nakane 1986: 19.  
Japan (Honshu, Shikoku, Kyushu), China, Taiwan.  
No specimen.

### Phrymaceae

*Phryma leptostachya* L. var. *asiatica* Hara Haedokusou  
Okamoto 1941: 103 (as *P. leptostachya* L.), Watanabe 1973: IX, Nakane 1986: 50.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Himalaya, E. Siberia, Amur, Ussurie.  
Makuratani, *S. Yasuda* 525.

### Phytolaccaceae

*Phytolacca japonica* Makino Maruminoyamagobou  
Watanabe 1973: V.  
Japan (Honshu [east to Kanto], Shikoku, Kyushu), Taiwan.  
Akasaki higashitani, *T. Ohtomo* 179 (Herb. Ashiu).

### Plantaginaceae

*Plantago asiatica* L. Oobako  
Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 50.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Kurils, Korea, China, Taiwan, Sakhalin, E. Siberia, Malaysia.  
Sugou—Kaduradani, *S. Yasuda* 404, 494; Kamitani, *S. Okamoto* (1935 Jul.); Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16647.

### Polygalaceae

*Polygala japonica* Houtt. Himehagi  
Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 30.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Philipines, Indochina, Himalaya.  
Chiimura, *G. Koidzumi* (1921 Aug.)  
*Polygala reinii* Franch. et Sav. Kakinohagusa  
Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 30.  
Japan (Honshu [east to Kinki and Chubu Distr., and Shizuoka.])  
Hitsukuradani, *S. Okamoto* (1937 Jul.); Naisugitani, *N. Yamanaka* 3326.

### Polygonaceae

*Antenoron filiforme* (Thunb.) Roberty et Vartier Mizuhiki  
Okamoto 1941: 93 (as *Tovara filiformis* Nakai), Watanabe 1973: IV, Nakane 1986: 13.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Indochina, Himalaya.  
Sugou—Akasaki, *S. Yasuda* 629; Onokodani, *S. Okamoto* (1940 Sept.); Hitsukuradani, *S. Okamoto* (1936 Sept.); Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16781.  
*Antenoron neofiliforme* (Nakai) Hara Shinmizuhiki  
New.  
Japan (Honshu, Shikoku, Kyushu), S. Korea, China, Himalaya.  
Sugou, *S. Okamoto* (1940 Sept.); Nanase—Iwatani, *S. Yasuda* 797.  
*Bistorta tenuicaulis* (Bisset et Moore) Nakai Harutoranoo  
Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 13.

Japan (Honshu, Shikoku, Kyushu.)

Haino, *G. Nakai* 3719; Sugou—Akasaki, *S. Yasuda* 9; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 526; Jizoutouge—Choujidani, 620-680m, *S. Fujii* 2697; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16216; Sasaritouge—Ashiu, *K. Iwatsuki* 686; Ashiu, *Z. Tashiro* (1933 May), *K. Iwatsuki* 686, *M. Hiroe* 12163, 400m, *Y. Inamasu* (1963 May).

*Persicaria conspicua* (Nakai) Nakai

*Sakuratade*

Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 13.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea.

No specimen.

*Persicaria debilis* (Meisn.) H. Gross

*Miyamatanisoba*

Okamoto 1941: 93 (as *P. triangularis* Nakai), Watanabe 1973: IV, Nakane 1986: 13.

Japan (Honshu, Shikoku, Kyushu), S. Korea (Jeju Isl. and Mt. Tiili.)

Sudendani, *S. Yasuda et al.* 477; Nodabata, *S. Yasuda* 477; Mt. Mikunidake, 690m, *S. Tsugaru et al.* 16327, 660m, 16648.

*Persicaria hydropiper* (L.) Spach

*Yanagitade*

Okamoto 1941: 93 (as *P. Hydropiper* Spach var. *vulgaris* Ohki), Watanabe 1973: IV, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of N. Hemisphere.

Sugou, *S. Okamoto* (1936 Sept.); Sugou—Nanase, *S. Yasuda* 754; Jizoutouge—Nakayama—Mikunitouge, 670m, *S. Tsugaru et al.* 17162.

*Persicaria longiseta* (De Bruyn) Kitag.

*Inutade*

Okamoto 1941: 93, Watanabe 1973: V, Nakane 1986: 12.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, Sakhalin, Ussurie, Himalaya, Malaysia.

Nakayama, *S. Okamoto* (1936 Jul.); Kamitani, *S. Okamoto* (1936 Sept.); Nodabata, *S. Yasuda et al.* 767.

*Persicaria makinoi* (Nakai) Nakai

*Oonebaritade*

Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Nakayama, *S. Okamoto* (1940 Sept.); Kamitani, *S. Okamoto* (1936 Sept.)

*Persicaria nepalensis* (Meisn.) H. Gross

*Tanisoba, Sobatade*

Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 12.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, from China to N. Africa.

Sugou—Nanase, *S. Yasuda* 752.

*Persicaria nipponensis* (Makino) H. Gross

*Yanonegusa*

Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Ussurie, N.E. China, Korea.

Nanase, *S. Okamoto* (1936 Oct.); Choujidani, *S. Yasuda et al.* 681.

*Persicaria sieboldii* (Meisn.) Ohwi

*Akinounagitsukami*

Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, N.E. China, Taiwan, Amur, Ussurie, Sakhalin.

Sugou—Nanase, *S. Yasuda* 656; Choujidani, *S. Yasuda* 730; Jizoutouge—Nakayama—Sugiotouge, 660m, *S. Tsugaru et al.* 17157, 17158.

*Persicaria taquetii* (Lév.) Koidz.

*Nukabotade*

Okamoto 1941: 93 (as *P. minutula* Nakai), Watanabe 1973: V, Nakane 1986: 14.

Japan (Honshu, Shikoku, Kyushu), Korea.

No specimen.

*Persicaria thunbergii* (Siebold et Zucc.) H. Gross

*Mizosoba*

Okamoto 1941: 93 (as *P. hasta-triloba* Okuyama f. *leucantha* (Nakai), “Shirobanamizosoba”).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, Ussurie.

Akasaki, ca. 400m, *H. Takahashi et al.* 29; Sugou—Nanase, *S. Yasuda* 629; Hitsukuradani, *S. Yasuda*

*et al.* 541; Naisugidani, *S. Okamoto* (1936 Sept.); Choujidani, *K. Iwatsuki* 5523; Makuratani, *S. Yasuda* 1060; Jizoutouge—Nakayama—Sugiotouge, 670m, *S. Tsugaru et al.* 17159, 17161, 700m, 17160; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16651; Sasari, *H. Koyama* 0919.

*Persicaria viscofera* (Makino) H. Gross

*Nebaritade*

Okamoto 1941: 93 (as *P. viscofera* Gross var. *typica* Nakai), Watanabe 1973: IV, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea.

No specimen.

*Persicaria yokusaiana* (Makino) Nakai

*Hanatade*

Okamoto 1941: 93 (as *P. Posumbu* Gross), Watanabe 1973: IV, Nakane 1986: 14.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Nanase, *S. Okamoto* (1936 Oct.); Kamitani, *S. Yasuda et al.* 520; Choujidani, *N. Yamanaka* 3243; Makuratani—Oisugi, ca. 500m, *M. Hutoh* 24540; Jizoutouge—Nakayama—Sugiotouge, 720m, *S. Tsugaru et al.* 17155, 670m, 17156; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16652; Ashiu, *S. Okamoto* (1936 Sept.), (1936 Oct.)

*Polygonum aviculare* L.

*Michiyanagi, Niwayanagi*

Okamoto 1941: 93, Watanabe 1973: V, Nakane 1986: 12.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryuky.) Widespread in the temperate regions of N. Hemisphere.

No specimen.

*Reynoutria japonica* Houtt.

*Itadori*

Okamoto 1941: 93 (*R. japonica* Houtt. var. *typica* Ohki), Watanabe 1973: V, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Amami Oshima Isl.), Korea, China, Taiwan.

Sugou—Nanase, *S. Yasuda* 504, 755; Hitsukuradani, *S. Yasuda* 650; Nakayama, *S. Yasuda* 479; Jizoutouge—Nakayama—Sugiotouge, 640m, *S. Tsugaru et al.* 16783, 650m, 16784, 720m, 17163; Mt. Mikunidake, *G. Koidzumi* (1921 Aug.), 690m, *S. Tsugaru et al.* 16361.

*Rumex acetosa* L.

*Suiba, Sukanpo*

Okamoto 1941: 94, Watanabe 1973: IV, Nakane 1986: 13.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of N. Hemisphere. Sugou—Nanase, *S. Yasuda* 336, 1069; Shimodani, *S. Yasuda* 943; Choujidani, *S. Yasuda* 825.

*Rumex acetosella* L.

*Himesuiba*

Okamoto 1941: 94, Watanabe 1973: IV, Nakane 1986: 13.

Naturalized in Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Native to Eurasia.

Naturalized possibly in the beginning of the Meiji era. Native to Europe.

Chiimura, *G. Koidzumi* (1921 Aug.)

*Rumex japonicus* Houtt.

*Gishigishi*

Watanabe 1973: IV.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.), Kurils, Korea, China, Sakhalin, Kamchatka.

No specimen.

*Rumex nepalensis* Sprengel

*Kibunedaïou*

New.

Japan (Kyoto), E. & W. Asia.

Indicated as a vulnerable species by Red Data Book (1989).

Sasari, *S. Okamoto* (1934 Jul.)

*Rumex obtusifolius* L.

*Ezonogishigishi*

Watanabe 1973: IV, Nakane 1986: 12.

Naturalized in Japan (Hokkaido, Honshu, Shikoku, Kyushu), N. America. Native from Europe to N. Africa.

Native to Eurasia. Common over Japan.

Sugou, *S. Yasuda* 1159; Sugou—Kaduradani, *S. Yasuda* 505; Nakayama—Iwatani, *S. Yasuda et al.* 1030.



**Portulacaceae***Portulaca oleracea* L.*Suberihiyu, Tonbogusa*

Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 15.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread from the temperate to the tropical regions in the World.

Sugou, *M. Andoh* 355 (Herb. Ashiu).**Primulaceae***Lysimachia acroadenia* Maxim.*Ginreika, Miyamatagobou*

Okamoto 1941: 100, Watanabe 1973: VIII, Nakane 1986: 41.

Japan (Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

No specimen.

*Lysimachia clethroides* Duby*Okatoranoo*

Okamoto 1941: 100, Watanabe 1973: VIII, Nakane 1986: 41.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie, Indochina.

Sugou—Kadradani, *S. Yasuda* 499; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16643; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.)*Lysimachia fortunei* Maxim.*Numatoranoo*

Okamoto 1941: 100, Watanabe 1973: VIII, Nakane 1986: 41.

Japan (Hokkaido [Iburi], Honshu, Shikoku, Kyushu), Korea, China, Taiwan, Indochina.

Kamitani, *M. Tagawa* 2102; Choujidani, *K. Iwatsuki* 5507, *S. Yasuda* 524; Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16813.*Lysimachia japonica* Thunb.*Konasubi*

Okamoto 1941: 100, Watanabe 1973: VIII, Nakane 1986: 41.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), China, Taiwan, Indochina, Indochina, Malaysia.

Keyakizaka, *S. Okamoto* (1936 Jul.); Hitsukuradani, *S. Yasuda et al.* 381; Mt. Mikunidake, 690m, *S. Tsugaru et al.* 16322; Ashiu, *S. Terabayashi et al.* 2453.**Pyrolaceae***Chimaphila japonica* Miq.*Umegasasou*

Watanabe 1973: VIII, Nakane 1986: 39.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, N.E. & C. China, Sakhalin, Ussurie. Jizoutouge, *I. Nakane* 407 (Herb. Ashiu).*Monotropa hypopitys* L.*Shakujousou*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of Asia, N. America, and Europe.

Nodabata, *S. Yasuda* 791.*Monotropa uniflora* L.*Ginryousoumodoki*

New.

Japan (Honshu, Shikoku, Kyushu.) Widespread in the temperate regions of E. Asia, India, and N. America.

Nodabata, *S. Yasuda* 790.*Monotropastrum humile* (D. Don) Hara*Ginryousou*Okamoto 1941: 100 (as *M. globosum* H. Andres var. *pentapetala* Honda in Pirolaceae); Watanabe 1973: VIII, Nakane 1986: 39.Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, Korea, China, Taiwan, Sakhalin. Hitsukuradani, *S. Yasuda* 379; Sukendani, *S. Yasuda* 285; Choujidani, ca. 600m, *H. Takahashi* 914; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16313, 660m, 16417; Ashiu, *A. Nitta* 11938.*Pyrola japonica* Klenze*Ichiyakusou*Okamoto 1941: 100 (as *P. japonica* Klenze in Pirolaceae), Watanabe 1973: VIII, Nakane 1986: 39.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Ussurie.

Hitsukuradani, *S. Yasuda* 1019; Choujidani, *S. Yasuda et al.* 1049; Chiimura, *Anonymous* (1921 Aug.)

**Ranunculaceae***Aconitum sanyoense* Nakai

## San'youbushi

Okamoto 1941: 94 (as *A. japonicum* Thunb. var. *montanum* Nakai, "Yamatorikabuto"), Watanabe 1973: V, Nakane 1986: 16 (as "Torikabuto").

Japan (Honshu [east to Kanto Distr., mainly along the Japan-Sea side], Shikoku.)

Hitsukuradani, *S. Yasuda* 728; Kamitani, *M. Ito* 3593; Makuratani, *S. Yasuda et al.* 769; Jizoutouge—Nakayama—Sugiotouge, 700m, *S. Tsugaru et al.* 17154; Mikunitouge, *G. Nakai* 5603; Chiimura, *M. Tamura* 136; Ashiu, *S. Okamoto* (1936 Sept.), (1936 Oct.)

*Actaea asiatica* Hara

## Ruiyoushouma

Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 16.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.

Shimodani, *N. Yamanaka* 3310.

*Anemone flaccida* Fr. Schm.

## Nirinsou

Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 16.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N. & N.E. China, Amur, Ussurie, Sakhalin.

Sugou, *S. Okamoto* (1936 May); Sugou—Koyomogi, *S. Yasuda* 76; Hitsukuradani, *S. Yasuda* 99;

Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 512; Sasari, *K. Iwatsuki* 678; Ashiu, *G. Murata* 7061.

*Anemone nikoensis* Maxim.

## Ichirinsou

Okamoto 1941: 94, Watanabe 1973: V, Nakane 1986: 17.

Japan (Honshu, Shikoku, Kyushu.)

Hitsukuradani, *S. Yasuda* 165; Shimodani, *S. Okamoto* (1938 May); Sasari, *M. Tamura* 1055.

*Aquilegia buergeriana* Siebold et Zucc.

## Yamaodamaki

Watanabe 1973: V.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

No specimen.

*Caltha palustris* L. var. *nipponica* Hara

## Ryuukinka

Okamoto 1941: 94 (as *C. membranacea* N. Schipcz. f. *erecta* Koidz.), Watanabe 1973: V, Nakane 1986: 16.

Japan (Honshu, Kyushu), Korea, China, E. Siberia, Amur, Ussurie.

Sugou—Nanase, *S. Yasuda* 108; Nanase—Ootani, 520m, *K. Tsuchiya* 89; Chiimura, *G. Koidzumi* (1921 Aug.), (1922 May).

*Cimicifuga simplex* Wormsk.

## Sarashinashouma

Okamoto 1941: 95 (as *C. simplex* Wormsk. var. *Matsumurai* Nakai, "Yamashoma"), Watanabe 1973: V, Nakane 1986: 16.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, Sakhalin, E. Siberia, Kamchatka.

Yakeyama (near Naisugitani), *N. Yamanaka* 3226.

*Clematis apiifolia* DC

## Botanduru

Okamoto 1941: 39, Watanabe 1973: V, Nakane 1986: 17 Yamanaka 1991: 6.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Hitsukuradani, *S. Yasuda* 649; Makuratani *S. Yasuda* 1064; Ashiu, *G. Koidzumi* (1921 Aug.)

*Clematis japonica* Thunb.

## Hanshouduru

Okamoto 1941: 39, Watanabe 1973: V, Nakane 1986: 16 Yamanaka 1991: 6.

Japan (Honshu, Kyushu.)

Sugou—Nanase, *S. Yasuda* 343; Hitsukuradani, *S. Yasuda* 548, 1014; Keyakizaka, *N. Yamanaka* 3160.

*Clematis tosaensis* Makino

## Torigatahanshouduru

New.

Japan (Honshu, Shikoku.)

Mikunitouge, *N. Yamanaka* 3157.

*Coptis japonica* (Thunb.) Makino var. *dissecta* (Yatabe) Nakai

## Seribaouren

Okamoto 1941: 95 (as *C. japonica* (Thunb.) Makino, "Ouren"), Watanabe 1973: V (as "Ouren"),

Nakane 1986: 17 (as "Ouren").

Japan (Honshu, Shikoku.)

Nakayama, *S. Yasuda et al.* 289; Sasari, *M. Tamura* 1320.

*Coptis quinquefolia* Miq.

*Baikaouren*

Okamoto 1941: 95 (as *C. quinquefolia* Miq. var. *stolonifera*, "Tsurugokayowouren" Makino), Watanabe 1973: V, Nakane 1986: 17.

Japan (Honshu [north to Fukushima], Shikoku.)

Haino, *S. Okamoto (1934 Apr.)*; Kaduradani, *S. Yasuda et al.* 228; Naisugidani, *S. Okamoto (1936 May)*; Shimodani, *S. Yasuda et al.* 863; Sasari, *S. Fujii* 3, *S. Yasuda et al.* 976; Chiimura, *G. Koidzumi (1922 May)*.

*Dichocarpum ohwianum* (Koidz.) Tamura et Lauener

*San'inshirokanesou*

New.

Japan (Honshu [the Japan-Sea side from Fukui to Shimane].)

Nanase—Ootani, *K. Tsuchiya* 87; Nanase—Ootsubo, *S. Okamoto (1933 Jul.)*; Hitsukuradani, *S. Yasuda* 96, 164; Mt. Mikunidake, *S. Tsugaru et al.* 16223, 16332; Ashiu, *S. Okamoto (1930 May)*, (1936 May), *Y. Araki* 568, *M. Tamura* 1329; Chii, *G. Koidzumi (1922 May)*.

*Ranunculus japonicus* Thunb.

*Umanoashigata, Kinpouge*

Okamoto 1941: 95, Watanabe 1973: V, Nakane 1986: 16.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Ussurie.

Sugou—Iguri, *S. Okamoto*; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1253, *S. Yasuda et al.* 202, 218, 979, 1072; Nanase—Ootani, 520m, *K. Tsuchiya* 88; Ootsubo, *S. Okamoto (1938 May)*; Mt. Mikunidake (transplanted to K. U.), *G. Koidzumi (1923 May)*; Chiimura, *G. Koidzumi (1922 May)*, *M. Tamura* 131.

*Ranunculus silerifolius* Lév.

*Kitsunenobotan*

Okamoto 1941: 95 (*R. Vernyi* Fr. et Sav. var. *glaber* Nakai), Watanabe 1973: V, Nakane 1986: 17.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Kurils, China, Taiwan, Himalaya.

Sugou—Kaduradani, *S. Yasuda* 400, 495; Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16791, 16793; Ashiu, *S. Okamoto (1936 Sept.)*, *S. Tarabayashi et al.* 2357.

*Thalictrum minus* L. var. *hypoleucum* (Siebold et Zucc.) Miq.

*Akikaramatsu*

Okamoto 1941: 95 (as *T. Thunbergii* A. P. DC. var. *glaber* Nakai), Watanabe 1973: V, Nakane 1986: 16.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, N.C. & N.E. China, Sakhalin, Mongolia.

Choujidani, *K. Iwatani* 5502; Ashiu, *S. Okamoto (1936 Sept.)*

*Trautvetteria caroliniensis* (Walt.) Vail var. *japonica* (Siebold et Zucc.) T. Shimizu

*Momijikaramatsu*

New.

Japan (Hokkaido, N. Honshu, Shikoku [on high mountains]), S. Kurils, Sakhalin, Ussurie.

Rare on the west of Mt. Ibuki.

Hitsukuradani, *S. Yasuda et al.* 418.

## Rhamnaceae

*Berchemia longeracemosa* Okuyama

*Honagakumayanagi*

Yamanaka 1991: 18.

Japan (Honshu [the Japan-Sea side])

Tanosaki, *M. Tagawa (1933 Jul.)*; Nakayama, *N. Yamanaka* 3179; Ashiu, *A. Nitta* 11931.

*Berchemia racemosa* Siebold et Zucc.

*Kumayanagi*

Okamoto 1930: 68, Okamoto 1941: 66, Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 18.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 887; Iguri, *N. Yamanaka* 3121; Sugou—Haino, *N. Yamanaka* 3304, *S. Yasuda et al.* 901.

*Hovenia tomentella* (Makino) Nakai

*Kekenponashi*

Okamoto 1941: 67, Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 18 (as *H. tomentella*

(Makino) Makino).

Japan (Honshu [north to Miyagi], Shikoku, Kyushu [Miyazaki].)

Sugou, *S. Yasuda et al.* 964, 1038.

*Rhamnus crenata* Siebold et Zucc.

*Isonoki*

Okamoto 1930: 69, Okamoto 1941: 66 (as *Frangula crinata* Miq.), Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 18.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Sugou, *M. Tagawa* 2053; Haino—Koyomogi, *N. Yamanaka* 3303; Sasari, *N. Yamanaka* 3117; Chiimura, *G. Koidzumi* (1921 Aug.).

*Rhamnus japonica* Maxim. var. *decipiens* Maxim.

*Kuroumemodoki*

Okamoto 1930: 69 (as *R. japonica* Maxim.), Okamoto 1941: 67 (as *R. japonica* Maxim. var. *decipiens* Maxim., "Kobanokuroumemodoki"), Watanabe 1973: VII, Nakane 1986: 32 (including "Kobanokuroumemodoki"), Yamanaka 1991: 18.

Japan (Honshu, Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 873; Naisugidani, *N. Yamanaka* 3159, 3327.

## Rosaceae

*Agrimonia nipponica* Koidz.

*Himekinmizuhiki*

New.

Japan (S. & W. Hokkaido, Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

Akasaki, *S. Okamoto* (1927 Aug.); Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16797, 680m, 17144; Ashiu, ca. 300-400m, *S. Mitsuta* 12267.

*Agrimonia pilosa* Ledeb. var. *japonica* (Miq.) Nakai

*Kinmizuhiki*

Okamoto 1941: 96 (as *A. japonica* Koidz.), Watanabe 1973: VI, Nakane 1986: 25.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Sakhalin, Ussurie, Indochina. Sugou, *S. Okamoto* (1936 Sept.); Akasaki, *S. Okamoto* (1927 Aug.), *S. Yasuda* 620; Hitsukuradani, *S. Okamoto* (1936 Sept.); Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16796, 16795.

*Amelanchier asiatica* (Siebold et Zucc.) Endl. ex Walp.

*Zaifuriboku, Shidezakura*

Okamoto 1930: 49, Okamoto 1941: 46 (in Malaceae), Watanabe 1973: VI, Nakane 1986: 24, Yamanaka 1991: 10.

Japan (Honshu [north to Iwate], Shikoku, Kyushu), Korea, China.

Sugou, *S. Yasuda et al.* 870; Sugou—Haino, *S. Okamoto* (1936 May); Ashiu, ca. 350m, *K. Ueda et al.* 549.

*Aruncus dioicus* (Walt.) Fern. var. *tenuifolius* (Nakai) Hara

*Yamabukishouma*

Okamoto 1941: 96 (as *A. silvester* Kostel. var. *americanus* Maxim. in Spiraeaceae), Watanabe 1973: VI, Nakane 1986: 24.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), N. Korea, China.

Sugou—Akasaki, *S. Yasuda* 440; Iwatani, *M. Tagawa* 2073; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16660.

*Duchesnea chrysantha* (Zoll. et Mor.) Miq.

*Hebiichigo*

Okamoto 1941: 96 (as *D. Wallichiana* Nakai), Watanabe 1973: VI, Nakane 1986: 24.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Malaysia, India.

Sugou—Haino, *S. Yasuda* 1075; Hitsukuradani, *S. Yasuda* 386, 1016; Choujidani—Mikunitouge, *S. Yasuda* 826.

*Duchesnea indica* (Andr.) Focke

*Yabuhebiichigo*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 25.

Japan (Honshu [east to Kanto], Shikoku, Kyushu, Ryukyus), Korea, China, India, S.E. Asia, Europe. Ashiu, *S. Okamoto* (1936 May).

*Filipendula multijuga* Maxim.

*Shimotsukesou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 26.

Japan (Honshu [east to Kanto Distr. mainly along the Pacific side], Shikoku, Kyushu.)

Sugou—Kaduradani, *S. Yasuda* 503; Shimodani, *M. Tagawa* 2075; Sukendani, *S. Yasuda* 1178; Mt.

Mikunidake, *G. Koidzumi* (1921 Aug.); Ashiu, *S. Okamoto* (1935 Jul.), *G. Nakai* 5595.

*Geum japonicum* Thunb.

*Daikonsou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 24.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu), China.

Sugou—Akasaki, *S. Yasuda* 441; Hitsukuradani, *S. Yasuda* 544; Sukendani, *S. Yasuda et al.* 577; Choujidani, *M. Hotta* 15705; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16348; Ashiu, *S. Okamoto* (1935 Jul.), *S. Terabayashi et al.* 2452.

*Kerria japonica* (L.) DC.

*Yamabuki*

Watanabe 1973: VI, Nakane 1986: 25.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), China.

Haino, *S. Yasuda* 898 (escaped?).

*Malus toringo* (Siebold) Siebold ex Vriese

*Zumi, Koringo*

Watanabe 1973: VI, Yamanaka 1991: 10.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Kamitani, *M. Tagawa* 2040; Nadabata, *S. Okamoto* (1930 May); Mikunitouge, *N. Yamanaka* 3297; Ashiu, *G. Nakai* 3315.

*Malus tschonoskii* (Maxim.) C.K.Schm.

*Oourajironoki, Zuminoki*

Okamoto 1930: 47 (as *Cormus Tschonoskii* Koidz.), Okamoto 1941: 46 (as *Docyniopsis Tschonoskii* Koidz.), Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 10.

Japan (Honshu, Kyushu [Mt. Kuju])

Naisugitani, *N. Yamanaka* 3321; Sasari, *G. Koidzumi* (1922 May); Ashiu, *G. Koidzumi* (1921 Aug.)

*Potentilla centigrana* Maxim.

*Himehebiichigo*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 26.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.

Sugou—Haino, *S. Yasuda* 1076; Hitsukuradani, *S. Yasuda* 387, 1017; Kamitani, *S. Yasuda et al.* 1000; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16333; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Sasari—Haino, *S. Yasuda et al.* 981.

*Potentilla cryptotaeniae* Maxim.

*Mitsumotosou*

Okamoto 1941: 97 (as *P. Cryptotaeniae* Maxim. var. *insularis* Kitagawa), Watanabe 1973: VI, Nakane 1986: 24.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Hitsukura, *S. Yasuda* 648; Kamitani, *M. Tsugawa* 2072.

*Potentilla fragarioides* L. var. *major* Maxim.

*Kijimushiro*

Okamoto 1941: 97 (as *P. fragarioides* L. var. *Sprengeliana* Maxim.), Watanabe 1973: VI, Nakane 1986: 25.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Siberia, Amur, Ussurie.

Sugou—Koyomogi, *S. Yasuda et al.* 52, 806, 1073.

*Potentilla freyniana* Bornm.

*Mitsubatsuchiguri*

Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 24.

Japan (Honshu, Shikoku, Kyushu), Korea, N. & N.E. China, Ussurie, Amur.

Haino, *N. Yamanaka* 3268.

*Potentilla stolonifera* Lehm.

*Tsurukijimushiro*

Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 24.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea (Jeju Isl.), Sakhalin, Kamchatka.

Sugou, *S. Okamoto* (1934 May), ca. 400m, *M. Hutoh* 17073; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1256, 1262; Sasari, *K. Iwatsuki* 677; Ashiu, *S. Okamoto* (1936 May).

*Pourthiaea villosa* (Thunb.) Decne.

var. *villosa*

*Watagekamatsuka*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Kasa, *S. Okamoto* (1936 Jul.); Sasari, *S. Yasuda et al.* 958; Chiimura, *G. Koidzumi* (1921 Jul.)

var. *laevis* (Thunb.) Stapf.

*Kamatsuka, Ushigoroshi*

Okamoto 1930: 49 (as *P. villosa* Decne.), Okamoto 1941: 47 (as *P. laevis* Koidz.), Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 10.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Chiimura, *G. Koidzumi* (1922 May).

*Prunus grayana* Maxim.

*Uwamizuzakura*

Okamoto 1930: 53, Okamoto 1941: 50 (in Amygdalaceae), Watanabe 1973: VI, Nakane 1986: 24, Yamanaka 1991: 9.

Japan (Hokkaido [north to the Ishikari plain], Honshu, Shikoku, Kyushu [to S. Kumamoto.])

Sugou (transplanted?), *S. Yasuda* 893; Kamitani, *S. Okamoto* (1938 May); Bunanokitouge—Nakayama, *S. Yasuda* 921; Choujidani, *S. Yasuda* 253; Mt. Mikundake, 650m, *S. Tsugaru et al.* 16249; Sasari, *G. Murata* 7035, *S. Fujii* 56; Ashiu, *A. Nitta* 12507.

*Prunus incisa* Thunb. ex Murray subsp. *kinkiensis* (Koidz.) Kitamura *Kinkimezakura*

Okamoto 1930: 52 (as *P. kinkiensis* Koidz.), Okamoto 1941: 51 (as *P. kinkiensis* Koidz. in Amygdalaceae), Watanabe 1973: VI, Nakane 1986: 24, Yamanaka 1991: 10.

Japan (Honshu [Chubu, Kinki and Chugoku Distr.])

Sugou—Akasaki, *S. Yasuda* 13; Naisugidani, *S. Okamoto* (1936 May); Sasari—Haino, *M. Umebayashi* 1549; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *G. Murata* 7059.

*Prunus jamasakura* Siebold ex Koidz.

*Yamazakura*

Okamoto 1930: 52 (as *P. serrulata* Lindl. var. *spontanea* Makino subv. *glabra* Makino), Okamoto 1941: 51 (as *P. serrulata* Lindl. var. *spontanea* Makino), Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 10.

Japan (Honshu [the Pacific side east to Miyagi and the Japan-Sea side east to Niigata], Shikoku, Kyushu)

Hitsukuradani, *S. Okamoto* (1936 May), *S. Yasuda* 194.

*Prunus verecunda* (Koidz.) Koehne

*Kasumisakura*

Okamoto 1941: 51 (as *P. pudibunda* Koidz., “Okuyamazakura” in Amygdalaceae), Yamanaka 1991: 10 (as *P. Leveilleana* Koehne).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Sugou, *S. Yasuda et al.* 871.

*Rosa multiflora* Thunb.

*Noibara, Nobara*

Okamoto 1930: 52, Okamoto 1941: 48 (as *R. polyantha* S. et Z.), Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 11.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Kamitani, *Y. Araki* 528; Choujidani, *S. Yasuda* 461; Mt. Mikundake, 650m, *S. Tsugaru et al.* 16394.

*Rosa paniculigera* Makino

*Miyakoibara*

New.

Japan (Honshu [the Japan-Sea side of Hokuriku, Kinki, Chugoku Distr.], N. Shikoku, N. Kyushu) Ashiu, *S. Okamoto* (1938 Jul.), (1953 Jul.)

*Rubus buergeri* Miq.

*Fuyuichigo*

Okamoto 1930: 50, Okamoto 1941: 49, Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 12.

Japan (Honshu [north to Niigata and Ibaragi], Shikoku, Kyushu), S. Korea, S.C. China, Taiwan. No specimen.

*Rubus corchorifolius* L. fil.

*Biroudoichigo*

Yamanaka 1991: 12.

Japan (Honshu [east to E. Shizuoka], Shikoku, Kyushu), S. Korea, China.

Yusen, *M. Andoh* 218 (Herb. Ashiu).

*Rubus crataegifolius* Bunge

*Kumaichigo*

Okamoto 1930: 51, Okamoto 1941: 50 (as *R. Wrightii* A. Gray), Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 11.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), N. Korea, N. & N.E. China, Ussurie.

Sugou—Haino, *S. Yasuda* 897; Hitsukuradani, *S. Yasuda* 1172; Bunanokitouge—Nakayama, *S. Yasuda* 918; Kamitani, *S. Yasuda* 356; Choujidani and Shimodani, ca. 600m, *H. Takahashi* 856; Ashiu—Sasari, 600-900m, *G. Murata et al.* 32; Chiimura, *G. Koidzumi* (1922 May).

*Rubus hakonensis* Franch. et Sav. *Miyamafuyuichigo*

Okamoto 1941: 49, Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 12.

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 764; Akasaki, ca. 400m, *H. Takahashi et al.* 20.

*Rubus hirsutus* Thunb. *Kusaichigo, Yabuichigo*

Okamoto 1930: 51 (as *R. Thunbergii* S. et Z.), Okamoto 1941: 49, Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 11.

Japan (Honshu, Shikoku, Kyushu), Korea, China.

Sugou—Akasaki, *S. Yasuda* 213, 894; Onokodani, *G. Murata* 7048; Naisugitani, *N. Yamanaka* 3273; Sasari—Haino, *S. Yasuda et al.* 956.

*Rubus illecebrosus* Focke *Baraichigo*

Okamoto 1930: 50 (as *R. Commersoni* Poir. var. *simpliciflorus* Makino), Okamoto 1941: 49, Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 11.

Japan (the Pacific side of Honshu [east to Kanto Distr.], Shikoku, and Kyushu.)

Sugou—Akasaki, *S. Yasuda* 431; Hitsukuradani, *S. Yasuda* 449; Naisugidani, *M. Tagawa* 2076; Sukendani, *S. Yasuda et al.* 578; Choujidani, *S. Okamoto* (1936 Jul.); Choujidani and Shimodani, ca. 600m, *H. Takahashi* 852; Choujidani-Hitsukuradani and Nayasukedani (= Naisugidani), *A. Nitta* 12591; Nakayama, *S. Tanaka* (1932 Jul.); Jizoutouge—Nakayama—Sugiotouge, 650m, *S. Tsugaru et al.* 16773; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16661.

*Rubus palmatus* Thunb. *Nagabanomomijiichigo*

Okamoto 1930: 51 (as "Kiichigo, Awaichigo"), Okamoto 1941: 49 (*R. palmatus* Thunb. var. *palmatus* O. Kuntze), Watanabe 1973: VI, Nakane 1986: 26 (as "Kiichigo"), Yamanaka 1991: 11.

Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu), Korea, China.

Sugou—Koyomogi, *S. Yasuda* 45, 74; Keyakizaka, *S. Okamoto* (1937 May); Jizoutouge—Choujidani, 620-680m, *S. Fujii* 2695; Sasari, *G. Murata* 7036; Ashiu, *Z. Tashiro* (1933 May).

*Rubus parvifolius* L. *Nawashiroichigo*

Okamoto 1930: 51 (as *R. triphyllus* Thunb.), Okamoto 1941: 49 (as *R. parvifolius* L. var. *triphyllus* Nakai), Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 11.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, India.

Sugou—Haino, *S. Yasuda* 954; Sugou—Hitsukura, *S. Yasuda et al.* 877, 1013.

*Rubus pectinellus* Maxim. *Kobanofuyuichigo, Marubafuyuichigo*

Okamoto 1930: 50, Okamoto 1941: 50, Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 12.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 407; Hitsukuradani, *S. Yasuda* 1012, 1177; Bunanokitouge—Nakayama, *S. Yasuda* 919; Nakayama, *S. Yasuda et al.* 1045; Sukendani, *S. Yasuda et al.* 579; Choujidani, *S. Okamoto* (1936 Jul.); Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16341; Sasari—Haino, *S. Yasuda et al.* 960; Ashiu, *A. Nitta* 11948.

*Rubus phoenicolasius* Maxim. *Urajiroichigo, Ebigaraichigo*

Okamoto 1930: 50, Okamoto 1941: 50, Watanabe 1973: VI, Nakane 1986: 25, Yamanaka 1991: 12.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou—Haino, *S. Yasuda* 895; Sasari—Hacchourindou, 450-600m, *S. Mimoro et al.* 16387; Ashiu—Shuzan, *S. Tanaka* (1932 Jul.)

*Rubus sumatranus* Miq. *Kojikiichigo*

Okamoto 1930: 51 (as *R. sorbifolius* Maxim.), Okamoto 1941: 48 (as *R. asper* Wall.), Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 11.

Japan (Honshu [east to Kanto and Chubu Distr.], Shikoku, Kyushu), S. Korea, N. China, Taiwan, India.

Sugou, *M. Andoh* 433 (Herb. Ashiu).

*Sorbus alnifolia* (Siebold et Zucc.) C. Koch.

*Azukinashi, Hakarime*

Okamoto 1930: 48 (as *Micromeles alnifolia* Koehne), Okamoto 1941: 47 (as *Micromeles alnifolia* Koehne in Malaceae), Watanabe 1973: VI, Nakane 1986: 24, Yamanaka 1991: 10.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie, Sakhalin.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1305; Kamidani, *M. Tagawa* 1736; Bunanokitouge, 900m, *G. Murata et al.* 1173; Choujidani, *N. Yamanaka* 3333; Mikunitouge, *S. Yasuda* 328; Sasari—Haino, *S. Yasuda et al.* 959.

*Sorbus commixta* Hedl.

var. *commixta*

*Nanakamado*

Okamoto 1930: 48 (as *S. Aucuparia* L.), Okamoto 1941: 47 (as *S. Wilfordii* Koehne, “Tsushima-nanakamado” in Malaceae), Nakane 1986: 26, Yamanaka 1991: 11 (as *S. americana* subsp. *japonica* (Maxim.) Kitamura).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, Sakhalin.

Sugou, *S. Okamoto* (1940 Sept.); Sugou—Akasaki, ca. 400m, *E. Okubo et al.* 29; Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1288; Haino, *S. Okamoto* (1951 Aug.); Akasaki, ca. 400m, *H. Takahashi et al.* 23; Kamitani, *S. Okamoto* (1935 Jul.); Kasa, *S. Yasuda* 920; Ashiu, *G. Nakai* 3335,

var. *rufoferruginea* C. K. Schn.

*Sabibananakamado*

Watanabe 1973: VI.

Japan (C. Honshu [Kanto and Tohkai Distr.], Shikoku [high mountain], Kyushu.)

Naisugidani, *S. Miyake et al.* 285 (Herb. Ashiu).

*Sorbus gracilis* (Siebold et Zucc.) C. Koch

*Nankinnanakamado*

Okamoto 1930: 48, Okamoto 1941: 47 (in Malaceae), Watanabe 1973: VI, Nakane 1986: 26, Yamanaka 1991: 11.

Japan (Honshu [east to Fukushima and Niigata], Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 883; Sasari, *S. Yasuda et al.* 954; Chiimura, *G. Koidzumi* (1922 May).

*Sorbus japonica* (Decne.) Hedlund

*Urajironoki*

Okamoto 1930: 49 (as *Micromeles japonica* Koehne), Okamoto 1941: 47 (as *Micromeles japonica* Koehne in Malaceae), Watanabe 1973: VI, Nakane 1986: 24, Yamanaka 1991: 11.

Japan (Honshu, Shikoku, Kyushu.)

Sugou, *S. Yasuda et al.* 881; Sasari—Haino, ca. 800m, *M. Umebayashi* 1045, *S. Yasuda* 957.

## Rubiaceae

*Galium kikumugura* Ohwi

*Kikumugura*

Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Sugou—Haino, *S. Yasuda* 1067; Kaduradani, *S. Yasuda* 231; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16236, 670m, 16321.

*Galium kinuta* Nakai et Hara

*Kinutasou*

Watanabe 1973: IX, Nakane 1986: 48.

Japan (Honshu, Shikoku), China.

No specimen.

*Galium paradoxum* Maxim.

*Miyamamugura*

Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, E. Siberia, Ussurie.

Akasaki, *S. Okamoto* (1936 Sept.)

*Galium pogonathum* Franch. et Sav.

*Yamamugura*

New.

Japan (Honshu, Shikoku, Kyushu), Korea.

Nakayama, *S. Okamoto* (1944 Sept.)

*Galium pseudoasprellum* Makino

*Oobanoyaemugura*

Okamoto 1941: 103 (as *G. dahuricum* Turcz. var. *lasiocarpum* Nakai), Nakane 1986: 49.



Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.  
No specimen.

*Galium spurium* L. var. *echinospermum* (Wallr.) Hayek Yaemugura

Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus.) Widespread in Asia, Europe, Africa.  
Sugou, *S. Yasuda* 1151.

*Galium trachyspermum* A. Gray Yotsubamugura

Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
Nanase—Iwatani, *S. Okamoto* 551 (Herb. Ashiu).

*Galium trifidum* L. var. *brevipedunculatum* Regel Hosobanoyotsubamugura  
New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, N. America.

Kamitani, *S. Okamoto* (1936 Jul.); Nodabata, *S. Okamoto* (1938 Jul.), *S. Yasuda et al.* 772;  
Choujidani, *S. Yasuda et al.* 489; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16419; Sasari, *S. Okamoto*  
(1936 Jul.)

*Galium trifloriforme* Komar.

var. *trifloriforme* Okukurumamugura  
New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, N.E. China, Sakhalin.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1260, *S. Yasuda* 232; Hitsukuradani, *S. Yasuda* 1176;  
Kasa, *S. Okamoto* (1936 Jul.); Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16235, 670m, 16320;  
Chiimura, *G. Koidzumi* (1922 May).

var. *nipponicum* (Makino) Nakai Kurumamugura

Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Keyakizaka—Sugou, 300-900m, *K. Ueda et al.* 548; Naisugitani, *S. Yasuda et al.* 858; Makuratani,  
*S. Yasuda* 312; Ashiu, *S. Okamoto* (1935 Jul.)

*Galium verum* L. var. *asiaticum* Nakai form. *nikkoense* Ohwi Kawaramatsuba

Okamoto 1941: 103 (as *G. verum* L. var. *leiocarpum* Ledeb. f. *lacteum* Nemoto), Watanabe 1973:  
IX, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

No specimen.

*Hedyotis lindleyana* Hook. var. *hirsuta* (L. fil.) Hara Hashikagusa

Okamoto 1941: 103 (as *H. japonica* Masamune), Watanabe 1973: IX, Nakane 1986: 48.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), China, S.E. Asia.

Sugou, *S. Okamoto* (1936 Sept.), (1954 Oct.); Sugou—Kaduradani, *S. Yasuda* 709; Hitsukuradani,  
*S. Yasuda* 724; Jizoutouge—Nakayama—Sugiotouge, 640-650m, *S. Tsugaru et al.* 16812, 17131;  
Ashiu, *G. Nakai* 5609.

*Mitchella undulata* Siebold et Zucc. Tsuruaridoushi

Okamoto 1941: 103, Watanabe 1973: IX, Nakane 1986: 48.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea.

Hitsukuradani, *S. Yasuda* 457; Ootsubo—Iwatani, *S. Okamoto* (1935 Jul.)

*Paederia scandens* (Lour.) Merrill Yaitobana, Hekusokazura

Watanabe 1973: IX, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Philippines.

Sugou—Haino, *S. Yasuda* 666.

*Rubia argyi* (Lév.) Hara Akane

Okamoto 1941: 103 (as *R. Akane* Nakai), Watanabe 1973: IX, Nakane 1986: 49.

Japan (Honshu, Shikoku, Kyushu), Korea, C. China, Taiwan.

Choujidani, *S. Yasuda* 733.

*Rubia chinensis* Regel et Maack var. *glabrescens* (Nakai) Kitag. *Ookinutasou*  
Okamoto 1941: 103 (as *R. mitis* Miq.), Watanabe 1973: IX, Nakane 1986: 49.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.  
No specimen.

# Rutaceae

*Boenninghausenia japonica* Nakai *Matsukazesou*  
Okamoto 1941: 97, Watanabe 1973: VI, Nakane 1986: 30.  
Japan (Honshu [north to Miyagi], Shikoku, Kyushu.)  
Sugou—Haino, *S. Yasuda* 676.

*Phellodendron amurense* Rupr. *Kihada*  
Okamoto 1930: 56, Okamoto 1941: 54 (as *P. japonicum* Maxim.), Nakane 1986: 30, Yamanaka 1991: 13.  
Japan (Hokkaido, Honshu [east to Tohoku, Chubu, and Kinki Distr.], Shikoku, Kyushu), Korea, N. & N.E. China, Amur, Ussurie.  
Sugou, *M. Tagawa* (1933 Aug.); Mt. Mikunidake, 680m, *S. Tsugaru et al.* 16670; Ashiu, *G. Nakai* 5614, *A. Nitta* 12503.

*Skimmia japonica* Thunb. var. *intermedia* Komatsu form. *repens* (Nakai) Hara  
*Tsurumiyamashikimi, Tsurushikimi*  
Okamoto 1941: 54 (as *S. repens* Nakai), Watanabe 1973: VI, Nakane 1986: 30, Yamanaka 1991: 13 (as *S. japonica* f. *repens*).  
Japan (Hokkaido, Honshu [Tohoku Distr., the Japan-Sea side east to Chubu Distr., and higher elevations of cool mountains], higher elevations of cool mountains in Shikoku and Kyushu), Sakhalin. Kaduradani, *S. Yasuda* 112; Bunanokitouge—Nakayama, *S. Yasuda* 922; Mikunitouge, *S. Yasuda et al.* 853; Choujidani—Mikunitouge, ca.600- 800m, *K. Ueda et al.* 533; Mt. Mikunidake, 800m, *K. Tsuchiya* 96; Sasari, *K. Iwatsuki* 6470.

*Zanthoxylum ailanthoides* Siebold et Zucc. *Karasuzanshou*  
Okamoto 1930: 56 (as *Fagara ailanthoides* Engl.), Okamoto 1941: 53 (as *Fagara ailanthoides* Engl.), Watanabe 1973: VI, Nakane 1986: 30, Yamanaka 1991: 13 (as *Fagara ailanthoides* (Siebold et Zucc.) Engl.)  
Japan (Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, China, Taiwan, Philippines.  
Mt. Mikunidake, *G. Koidzumi* (1921 Aug.); Sasari, *N. Yamanaka* 3169.

*Zanthoxylum piperitum* (L.) DC. *Sanshou*  
Okamoto 1930: 55 (as *Xanthoxylum piperitum* DC. and as *X. piperitum* DC. var. *inerme* Makino), Okamoto 1941: 54 (including *Z. piperitum* DC. var. *inerme* Makino, "Asakurazanshou"), Watanabe 1973: VI (including "Asakurazanshou"), Nakane 1986: 30 (including "Asakurazanshou"), Yamanaka 1991: 13 (including *Z. piperitum* DC. f. *inerme* Makino, "Asakurazanshou").  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea, China.  
Sugou—Koyomogi, ca. 400m, *H. Nagamasu* 2069; Hitsukura, *S. Yasuda* 1170.

*Zanthoxylum schinifolium* Siebold et Zucc. *Inuzanshou*  
Okamoto 1930: 56 (as *Fagara schinifolia* Engl.), Okamoto 1941: 54 (as *Fagara mantchurica* Honda), Watanabe 1973: VI, Nakane 1986: 30, Yamanaka 1991: 13 (as *Fagara mantchurica* (Bennett) Honda).  
Japan (Honshu, Shikoku, Kyushu), Korea, China.  
No specimen.

# Sabiaceae

*Meliosma myriantha* Siebold et Zucc. *Awabuki*  
Okamoto 1930: 68, Okamoto 1941: 65, Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 18.  
Japan (Honshu, Shikoku, Kyushu), Korea, N.E. China.  
Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1295; Bunanokitouge—Nakayama, *S. Yasuda* 917; Chiimura, *G. Koidzumi* (1921 Aug.)

*Meliosma tenuis* Maxim.

Miyamahahaso

Okamoto 1930: 68, Okamoto 1941: 66, Watanabe 1973: VII, Nakane 1986: 28, Yamanaka 1991: 18.

Japan (Honshu, Shikoku, N. & C. Kyushu)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1282, *S. Yasuda* 508; Hitsukuradani, *S. Yasuda et al.* 560; Choujidani—Mikunitouge, *A. Nitta* 12551; Chiimura, *G. Koidzumi* (1921 Aug.), *S. Okamoto* (1949 Jul.); Shuzan—Ashiu, *S. Tanaka* (1932 Jul.); Ashiu, *A. Nitta* 11937.

**Salicaceae***Populus sieboldii* Miq.

Yamanarashi

Okamoto 1930: 31, Okamoto 1941: 31, Watanabe 1973: IV, Nakane 1986: 9, Yamanaka 1991: 2.  
Japan (Hokkaido, Honshu, Shikoku.)

Hitsukuradani, *S. Okamoto* (1936 May); Choujidani—Mikunitouge, ca. 600-800m, *K. Ueda et al.* 529.

*Salix alopochroa* Kimura

Saikokukitsuneyanagi

Watanabe 1973: IV, Yamanaka 1991: 3.

Japan (Honshu [east to Kinki Distr.], Shikoku, N. Kyushu.)

Keyakizaka, *S. Yasuda* 913; Jizoutouge, *S. Yasuda* 25, Mikunitouge, *M. Tagawa* (1933 Jul.); Sasari—Ashiu, 600-900m, *G. Murata et al.* 56; Sasari, *T. Horikawa* 355, *K. Iwatsuki* 63.

*Salix futura* Seemen

Ookitsuneyanagi

New.

Japan (Honshu [Chubu and Kanto Distr.])

Jizoutouge—Nodabata, *S. Yasuda* 20, 21.

*Salix gracilistyla* Miq.

Nekoyanagi

Okamoto 1930: 31, Okamoto 1941: 32, Watanabe 1973: IV, Nakane 1986: 9, Yamanaka 1991: 3.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China, Ussurie.

Sugou—Koyomogi, *S. Yasuda et al.* 810; Haino, *S. Okamoto* (1938 Jul.); Hitsukuradani, *S. Yasuda* 87, 93, 95; Makuratani, *Y. Araki* (1933 Jul.); Nodabata, *S. Yasuda* 22; Sasari, 400m, *Y. Inamasu* 37; Ashiu, *S. Okamoto* 19512, 19514, (1938 Jul.)

*Salix sachalinensis* Fr. Schm.

Onoyanagi

Okamoto 1930: 32, Okamoto 1941: 32, Watanabe 1973: IV, Nakane 1986: 9, Yamanaka 1991: 3.  
Japan (Hokkaido, Honshu, Shikoku), Kurils, Sakhalin, Kamchatka, Ussurie, Amur, Anadyrskiy, N.E. China.

Shimodani, *S. Okamoto* (1933 Jul.), (1936 May); Hitsukura, *S. Okamoto* (1936 May); Makuratani, *S. Yasuda et al.* 869; Ashiu, *Z. Tashiro* (1933 May), *S. Okamoto* 19516.

*Salix sieboldiana* Blume

Yamayanagi, Daisenyanagi

Okamoto 1941: 31 (as *S. daisenensis* Seem.), Watanabe 1973: IX, 64 - 65, Nakane 1986: 9, Yamanaka 1991: 2.

Japan (Honshu, Shikoku, Kyushu.)

Mikunitouge, *G. Nakai* (1951 Aug.), *N. Yamanaka* 3298; Ashiu, *A. Nitta* 11932.

*Salix ×thaymasta* Kimura

Miyakoyanagi

Okamoto 1941: 32 (as *S. thaymasta* Kimura), Watanabe 1973: IV, Yamanaka 1991: 3 (as *S. thaumasta* Kimura).

Hybrid between *S. gracilistyla* and *S. kinuyanagi*.

Makuratani, *S. Okamoto* (1936 Sept.); Ashiu, *S. Okamoto* (1938 May).

*Salix ×yamatoensis* Koidzumi

Yamatoyanagi

Watanabe 1973: IV, Nakane 1986: 9, Yamanaka 1991: 3 (as *S. Yamatoensis* Koidzum.).

Hybrid between *S. sachalinensis* and *S. alopochroa*.

Shimodani, *Y. Araki* 457.

**Santalaceae***Buckleya lanceolata* (Siebold et Zucc.) Miq.

Tsukubane

Okamoto 1930: 38 (as *B. Joan* Makino), Okamoto 1941: 38, Watanabe 1973: IV, Nakane 1986:

12, Yamanaka 1991: 6.

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu [Oita and Saga.]

Ashiu, A. Nitta 12514.

*Thesium chinense* Turcz.

*Kanabikisou*

Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 12.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Siberia, Amur, Ussurie.

No specimen.

### Saururaceae

*Houttuynia cordata* Thunb.

*Dokudami*

Okamoto 1941: 92 (as *Polypara cordata* Bueck), Watanabe 1973: IV, Nakane 1986: 14.

Japan (Honshu, Shikoku, Kyushu, Ryukyu), Korea, China, Taiwan, Himalaya, Java, Philippines.

Sugou, S. Yasuda et al. 1032; Choujidani, S. Yasuda 478; Mt. Mikunidake, 660m, S. Tsugaru et al. 16664.

### Saxifragaceae

*Astilbe thunbergii* (Siebold et Zucc.) Miq.

*Akashouma*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.

Japan (Honshu [from S. Tohoku to Kinki Distr.], Shikoku, Kyushu.)

Sugou—Kaduradani, S. Yasuda 498, 1180; Onokodani, S. Okamoto (1935 Jul.); Hitsukuradani, S. Yasuda et al. 547; Shimodani, M. Tagawa (1953 Jul.); Naisugidani, S. Okamoto (1936 Sept.); Nakayama, S. Okamoto (1930 Jul.), (1940 Sept.); Mikunitouge, S. Yasuda et al. 526; Sasari, ca. 600m, S. Mitsuta et al. (1978 Jul.); Ashiu, S. Okamoto (1938 Jul.)

*Cardiandra alternifolia* Siebold et Zucc.

*Kusaajisai*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.

Japan (Honshu [north to Miyagi and Fukushima], Shikoku, Kyushu.)

Sugou—Akasaki, S. Yasuda 439, 634; Sugou—Kaduradani, S. Yasuda 502; Naisugidani, M. Tagawa 1739; Choujidani, K. Iwatsuki 5516, 5522; Makuratani, S. Okamoto (1936 Sept.); Sasari, ca. 600m, S. Mitsuta et al. (1978 Jul.)

*Chrysosplenium fauriei* Franch.

var. *fauriei*

*Hokurikunekonomesou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 22.

Japan (Honshu [the Japan-Sea side from Niigata to Shimane.]

Sugou, S. Okamoto (1936 May); Haino, S. Okamoto (1934 Apr.); Akasaki, S. Okamoto (1936 May); Sugou—Koyomogi, S. Yasuda et al. 55; Kamitani, S. Yasuda 138; Choujidani—Ootani, ca. 600m, K. Ueda et al. 515; Ashiu, S. Okamoto (1936 May).

var. *kiotense* (Ohwi) Ohwi

*Botannekonomesou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 22.

Japan (Honshu [the Japan-Sea side, and east to Gifu.]

Haino, S. Okamoto (1937 May); Choujidani—Jizoutouge, 620-680m, S. Fujii 2698.

*Chrysosplenium grayanum* Maxim.

*Nekonomesou*

Okamoto 1941: 96 (as *C. Grayanum* Maxim. var. *typica* Fr. et Sav.), Watanabe 1973: VI, Nakane 1986: 21.

Japan (Hokkaido, Honshu), S. Kurils, Korea, China.

Kamitani, S. Yasuda 38, 139; Makuratani, S. Yasuda et al. 309, 835, 840; Mt. Mikunidake, 660m, S. Tsugaru et al. 16331.

*Chrysosplenium japonicum* (Maxim.) Makino

*Yamanekonomesou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.

Kamitani, S. Yasuda 40, 137; Naisugidani, S. Okamoto 12299; Mt. Mikunidake, 650m, S. Tsugaru et al. 16221.

- Chrysosplenium kamtschaticum* Fisch. ex Seringe Chishimanekonomesou  
 Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.  
 Japan (Hokkaido, N. Honshu [south to Kinki Distr.], Kurils, Sakhalin, Kamchatka.  
 Sugou—Haino, *S. Okamoto* (1936 May); Sugou—Akasaki, *S. Yasuda* 17; Kaduradani, *S. Yasuda* 239.
- Chrysosplenium macrostemon* Maxim. Iwabotan, Miyamanekonomesou  
 Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.  
 Japan (Honshu [the Pacific side east to Kanto Distr.], Shikoku, Kyushu.)  
 No specimen.
- Chrysosplenium tosaense* (Makino) Makino Tachinekonomesou  
 Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)  
 Sugou—Nanase, *S. Yasuda* 107, 216; Akasaki, *S. Okamoto* (1933 May), (1936 May); Kaduradani, *S. Yasuda* 123; Naisugidani, *S. Okamoto* (1936 May); Sasari, *K. Iwatsuki* 684; Ashiu, *G. Murata* 7078.
- Deinanthef bifida* Maxim. Ginbaisou  
 Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)  
 Mondori, *S. Yasuda* (1992 Jun.)
- Deutzia crenata* Siebold et Zucc. Utsugi  
 Okamoto 1930: 44 (as *D. scabra* Thunb. var. *crenata* Makino), Okamoto 1941: 43 (as *D. crenata* S. et Z. form *angustifolia* Regel), Watanabe 1973: VI, Nakane 1986: 21, Yamanaka 1991: 8.  
 Japan (S. Hokkaido, Honshu, Shikoku, Kyushu), China.  
 Sugou—Akasaki, *S. Yasuda* 409; Akasaki, ca. 400m, *H. Takahashi et al.* 27; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16395, 640m, 16396; Ashiu, *S. Okamoto* (1932 Jul.)
- Deutzia gracilis* Siebold et Zucc. Himeutsugi  
 Watanabe 1973: VI.  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)  
 No specimen.
- Hydrangea hirta* (Thunb. ex Murray) Siebold et Zucc. Koajisai  
 Okamoto 1930: 45, Okamoto 1941: 44, Watanabe 1973: VI, Nakane 1986: 22, Yamanaka 1991: 9.  
 Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu.)  
 Sugou—Akasaki, *S. Yasuda* 412; Hitsukuradani, *S. Yasuda et al.* 542; Chiimura, *G. Koidzumi* (1921 Aug.)
- Hydrangea paniculata* Siebold et Zucc. Noriutsugi  
 Okamoto 1930: 45, Okamoto 1941: 44 (as *H. paniculata* Siebold var. *floribunda* Regel), Watanabe 1973: VI, Nakane 1986: 20, Yamanaka 1991: 9.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin, S.C. China, Taiwan. Naturalized in N. America.  
 Sugou—Kaduradani, *S. Yasuda* 509; Choujidani, *K. Iwatsuki* 5501, *S. Yasuda* 462; Mt. Mikunidake, 680m, *S. Tsugaru et al.* 16676; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Chiimura, *N. Kinashi* (1921 Aug.)
- Hydrangea petiolaris* Siebold et Zucc. Tsuruajisai, Gotouduru  
 Okamoto 1930: 46 (as *H. scandens* Maxim.), Okamoto 1941: 44 (as *H. petiolaris* S. et Z. var. *ovalifolia* Fr. et Sav.), Watanabe 1973: VI, Nakane 1986: 21, Yamanaka 1991: 9.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Sakhalin, S. Korea.  
 Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1289, *S. Yasuda* 410; Nanase, *M. Tagawa* 1745; Kasa, *S. Okamoto* (1936 Jul.); Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16351 16675; Chiimura, *G. Koidzumi* (1921 Aug.), (1922 May), ca. 600m, *H. Takahashi* 932.
- Hydrangea serrata* (Thunb. ex Murray) Seringe Yamaajisai, Sawaajisai  
 var. *serrata*  
 Okamoto 1930: 45 (as *H. opuloides* Steud. var. *acuminata* Dipp.), Okamoto 1941: 44, Watanabe

1973: VI, Nakane 1986: 21, Yamanaka 1991: 9 (as *H. macrophylla* subsp. *serrata* (Thunb.) Makino).  
See the note of *H. serrata* var. *megacarpa*

Japan (Honshu [mainly in the Pacific side north to Fukushima], Shikoku, Kyushu), Korea.

Sugou—Kaduradani, *S. Yasuda* 430, 507; Mt. Mikunidake, 710m, *S. Tsugaru et al.* 16634\*, 16635\*, 16636\*, 16637\*, 16638\*, 16639\*, 16640, 16641, 16642; Chiimura, *G. Koidzumi* (1921 Aug.)

var. *megacarpa* (Ohwi) H. Ohba

*Ezoajisai*

New.

Japan (Hokkaido, Honshu [the Japan-Sea side from Aomori to Kyoto], N. Kyushu [and Ohsumi Pen.])

Some specimens (with an asterisk: see also var. *serrata*) have the intermediate forms between var. *serrata* and var. *megacarpa*.

Mt. Mikunidake, *S. Tsugaru et al.* 16601, 16604, 16605, 16606, 16610, 16611, 16621, 16623\*, 16625, 16626, 16627, 16628, 16629, 16630, 16633, 16769, 18537, 18538, 18543, 18544, 18644; Sasari—Haino, *S. Yasuda et al.* 961.

*Mitella acerina* Makino

*Momijicharumerusou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 21.

Japan (Honshu [the Japan-Sea side of Kyoto, Shiga, and Fukui].)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1269, *S. Yasuda* 54; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 521; Makuratani, *S. Yasuda* 310; Mt. Mikunidake, 690m, *S. Tsugaru et al.* 16220; Sasari, *K. Iwatsuki* 667; Chiimura, *G. Koidzumi* (1921 Aug.), (1922 May); Ashiu, 400m, *Y. Inamasu* 3, *M. Wakabayashi* 293, *H. Takahashi* 918, 500m, *K. Tsuchiya* 76.

*Mitella furusei* Ohwi var. *subramosa* Wakabayashi

*Charumerusou*

Okamoto 1941: 96 (as *M. stylosa* Boiss.), Watanabe 1973: VI.

Japan (Honshu [east to Fukui, Shiga, and Mie], Kyushu [Saga and Nagasaki].)

Sugou—Koyomogi, *S. Yasuda* 73; Makuratani, *S. Yasuda* 311; Mt. Mikunidake, 640m, *S. Tsugaru et al.* 16215; Ashiu, *G. Murata* 7079, 400m, *Y. Inamasu* (1963 May), ca. 600m, *H. Takahashi* 924.

*Mitella pauciflora* Rosend.

*Kocharumerusou*

New.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Akasaki, *S. Yasuda* 7, 217.

*Parnassia palustris* L. var. *multisetata* Ledeb.

*Umebachisou*

Okamoto 1941: 96 (as *P. palustris* L. f. *multisetata* Hiyama), Watanabe 1973: VI, Nakane 1986: 20.  
Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in the temperate and subarctic regions of N. Hemisphere.

Makuratani, *S. Miyake et al.* (1931 Aug.) (Herb. Ashiu).

*Philadelphus satsumi* Siebold ex Lindl. et Paht.

*Baikautsugi*

Okamoto 1930: 44 (as *P. cornarius* L. var. *Satsumi* Maxim.), Okamoto 1941: 45, Watanabe 1973: VI, Nakane 1986: 20, Yamanaka 1991: 9 (as *P. coronarius* L.)

Japan (Honshu, Shikoku, Kyushu.)

No specimen. (There is a specimen taken from Kutsuki.)

*Ribes ambiguum* Maxim.

*Yashabishaku*

Okamoto 1930: 46, Okamoto 1941: 45, Watanabe 1973: VI, Nakane 1986: 21, Yamanaka 1991: 9.

Japan (Honshu, Shikoku, Kyushu), W. China.

Indicated as a vulnerable species by Red Data Book (1989).

Mikunitouge, *M. Tagawa* (1933 Jul.)

*Rodgersia podophylla* A. Gray

*Yagurumasou*

Okamoto 1941: 96, Watanabe 1973: VI, Nakane 1986: 22.

Japan (S.W. Hokkaido, Honshu), Korea, N.E. China.

Sugou—Nanase, *S. Yasuda* 338; Ashiu, 700m, *F. Konta* 4698.

*Saxifraga fortunei* Hook. fil. var. *incislobata* (Engl. et Irmsh.) Nakai *Daimonjisou*

Okamoto 1941: 96 (as *S. Fortunei* J. D. Hook. var. *glabra* Nakai), Watanabe 1973: VI, Nakane

1986: 21.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Ussurie, Sakhalin.  
Sukendani, S. Yasuda 789; Naisugidani, S. Okamoto (1936 Oct.)

*Saxifraga stolonifera* Meerb.

Yukinoshita

New.

Japan (Honshu, Shikoku, Kyushu), China.

Sasari, S. Okamoto (1936 Jul.)

*Schizophragma hydrangeoides* Siebold et Zucc.

Iwagarami

Okamoto 1930: 46, Okamoto 1941: 45, Watanabe 1973: VI, Nakane 1986: 20, Yamanaka 1991: 9.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea (Ullung Isl.)

Naisugidani, M. Tagawa 1743; Mt. Mikunidade, 660m, S. Tsugaru et al. 16674; Ashiu, S. Okamoto (1932 Jul.)

### Schisandraceae

*Schisandra nigra* Maxim.

Matsubusa

Okamoto 1930: 42 (in Magnoliaceae), Okamoto 1941: 41 (in Magnoliaceae), Watanabe 1973: V (in "Mokuren-ka"), Nakane 1986: 19 (in "Mokuren-ka") Yamanaka 1991: 7 (as *S. repanda* (Siebold et Zucc.)).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea.

Kasa, S. Okamoto (1936 Jul.)

### Scrophulariaceae

*Deinostema adenocaulum* (Maxim.) Yamazaki

Marubanosawatougarashi

Okamoto 1941: 102 (as *Gratiola adenocaula* Maxim. in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.

Japan (Honshu, Shikoku, Kyushu), S. Korea (Jeju Isl.)

No specimen.

*Deinostema violaceum* (Maxim.) Yamazaki

Sawatougarashi

Okamoto 1941: 102 (as *G. violacea* Maxim. and *G. violacea* Maxim. var. *saginoidea* Fr. et Sav., "Akanumaso"), Watanabe 1973: IX, Nakane 1986: 47.

Japan (Hokkaido [Iburi], Honshu, Shikoku, Kyushu), Korea, N.E. China.

No specimen.

*Dopatrium junceum* (Roxb.) Buch.-Ham.

Abunome

Okamoto 1941: 102 (in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.

Japan (Honshu [north to Fukushima], Shikoku, Kyushu, Ryukyus), S. Korea, China, Taiwan, S.E. Asia, India.

No specimen.

*Lindernia angustifolia* (Benth.) Wettst.

Azetougarashi

Okamoto 1941: 102 (as *Vandellia serrata* Nakai in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.

Japan (Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, India, S.E. Asia.

No specimen.

*Lindernia procumbens* (Krock.) Philcox

Azena

Okamoto 1941: 102 (as *L. pyxidaria* All. in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47. Japan (Honshu, Shikoku, Kyushu.) Widespread from the temperate to tropical regions of N. Hemisphere.

Sugou, S. Okamoto (1954 Oct.)

*Mazus miquelii* Makino

Sagigoke

Okamoto 1941: 102 (as *M. Miquelii* Makino var. *stolonifer* Nakai f. *violascens* Nakai in Rhinanthaceae), Nakane 1986: 47.

Japan (Honshu, Shikoku, Kyushu), China, Taiwan.

Sugou—Haino, S. Yasuda 1066; Hitsukuradani, S. Yasuda 162, 385; Kamitani, S. Yasuda 357;

- Choujidani, *N. Yamanaka* 3264; Makuratani, *S. Okamoto* (1938 Jul.); Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16229, 670m, 16315; Chiimura, *G. Koidzumi* (1922 May).
- Mazus pumilus* (Burm. fil.) van Steenis Tokiwahaze  
 Okamoto 1941: 102 (as *M. japonicus* O. Kuntze in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Taiwan, C. Asia, Amur, Ussurie, India, S.E. Asia.  
 Sugou, *S. Okamoto* (1954 Oct.), *S. Yasuda* 1083; Koyomogi, *S. Okamoto* (1938 Jul.); Ashiu, *S. Okamoto* (1936 May).
- Melampyrum laxum* Miq. var. *nikkoense* Beauv. Miyamamakona  
 Okamoto 1941: 102 (as *M. laxum* Miq. in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.  
 Japan (S.W. Hokkaido, Honshu [and W. Chugoku Distr.])  
 Hitsukuradani, *S. Yasuda* 726; Mikunitouge, *S. Okamoto* (1936 Sept.), *S. Yasuda et al.* 688.
- Melampyrum roseum* Maxim. var. *japonicum* Franch. et Sav. Mamakona  
 Okamoto 1941: 102 (as *M. japonicum* Nakai in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.  
 Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu), S. Korea.  
 Chiimura, *K. Ando* (1921 Jul.)
- Mimulus nepalensis* Benth. var. *japonicus* Miq. Mizohouzuki  
 Okamoto 1941: 102 (as *M. inflatus* Nakai in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Korea, Taiwan.  
 Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1268; Akasaki, *S. Okamoto* (1936 Sept.); Hitsukuradani, *S. Yasuda* 380; Choujidani, *K. Iwatsuki* 5494.
- Pedicularis resupinata* L. var. *oppositifolia* Miq. Shiogamagiku  
 Okamoto 1941: 102 (as *P. resupinata* L. in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.  
 Japan (C. & S. Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.  
 Nakayama, *S. Okamoto* (1940 Jun.); Nakabata, *N. Yamanaka* 3253.
- Veronica arvensis* L. Tachiinunofuguri  
 New.  
 Naturalized around Japan. Native to Eurasia and Africa.  
 Naturalized in the beginning of the Meiji era. Native to Eurasia and Africa.  
 Sugou, *S. Yasuda* 910; Hitsukuradani, *S. Yasuda* 1020; Choujidani, *S. Yasuda et al.* 493.
- Veronica melissaefolia* Poir. Hiyokusou  
 Watanabe 1973: IX.  
 Japan (S.W. Hokkaido, Honshu, Shikoku), China, Himalaya, Anatolia.  
 No specimen.
- Veronica miqueliana* Nakai form. *takedana* Yamazaki Kokuwagata  
 Okamoto 1941: 102 (as *V. Miqueliana* Nakai var. *Takedana* Nemoto in Rhinanthaceae), Watanabe 1973: IX, Nakane 1986: 47.  
 Japan (Honshu [east to Chubu], Shikoku, Kyushu.)  
 No specimen.
- Veronica muratae* Yamazaki San'inkuwagata  
 New.  
 Japan (Honshu [the Japan-Sea side from N. Kyoto to Shimane.])  
 Sugou—Akasaki, *S. Yasuda*; Hitsukuradani, *S. Yasuda et al.* 384, 545; Nakanotsubo, *N. Yamanaka* 3229; Keyakizaka—Choujidani, *A. Nitta* 12552; Kamitrani, *S. Yasuda* 364; Makuratani, *S. Yasuda* 313; Mt. Mikunidake, 680m, *S. Tsugaru et al.* 16232, 670m, 16319; Ashiu, *M. Tamura* (1954 May), *S. Okamoto* (1958 Jul.), ca. 400m, *H. Nagamasu* 2072.
- Veronica persica* Poir. Ooinunofuguri  
 New.  
 Naturalized around Japan. Native to W. Asia.



Naturalized before 1887. Prevailed all around Japan before the beginning of the Taisho era. Native to West Asia.

Sugou, *S. Yasuda* 1065.

### Simaroubaceae

*Picrasma quassioides* (D. Don) Benn.

*Nigaki*

Watanabe 1973: XI.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, Himalaya.

No specimen.

### Solanaceae

*Physaliastrum japonicum* (Franch. et Sav.) Honda

*Igahouzuki*

Okamoto 1941: 102, Watanabe 1973: IX, Nakane 1986: 44.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N. & N.E. China.

Hitsukuradani, *S. Okamoto* (1936 Sept.); Kamitani, *S. Okamoto* (1935 Jul.); Choujidani, *S. Okamoto* (1940 Jun.)

*Physaliastrum savatieri* (Makino) Makino

*Aohouzuki*

Okamoto 1941: 102, Watanabe 1973: IX, Nakane 1986: 44.

Japan (Honshu, Shikoku.)

Sugou—Nanase, *S. Yasuda et al.* 293, 341; Nakanotsubo, *S. Yasuda et al.* 605; Ashiu, *S. Okamoto* 8963, (1929 May-Jun.), (1934 Jul.), A. Nitta 11935.

*Scopolia japonica* Maxim.

*Hashiridokoro*

Watanabe 1973: IX, Nakane 1986: 44.

Japan (Honshu, Shikoku, Kyushu), Korea.

Kamitani, *S. Yasuda* 132, 133.

*Solanum japonense* Nakai

*Yamahoroshi*

Okamoto 1941: 102 (as *S. gracilescens* Nakai), Watanabe 1973: IX, Nakane 1986: 44.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. & N.C. China.

Akasaki, *S. Yasuda*; Hitsukuradani, *S. Yasuda* 538.

*Solanum lyratum* Thunb.

*Hiyodorijougo*

Okamoto 1941: 102 (as *S. lyratum* Thunb. var. *leucanthum* Nakai, "Shirobanahiyodorijogo"),

Watanabe 1973: IX, Nakane 1986: 44.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Indochina.

Sugou, *S. Okamoto* (1936 Sept.)

*Tubocapsicum anomalum* (Franch. et Sav.) Makino

*Hadakahouzuki*

Okamoto 1941: 102, Watanabe 1973: IX, Nakane 1986: 44.

Japan (Honshu, Shikoku, Kyushu, Ryukyus, Bonin Isl.), the tropical and sub-tropical regions of S.E. Asia.

Ootani, *T. Nishida et al.* (1992 Oct.)

### Stachyuraceae

*Stachyurus praecox* Siebold et Zucc.

*Kibushi*

Okamoto 1930: 73, Okamoto 1941: 70, Watanabe 1973: VII, Nakane 1986: 15, Yamanaka 1991: 20.

Japan (S.W. Hokkaido, Honshu, Shikoku, Kyushu, Bonin Isl.)

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1281, *S. Yasuda* 60, 437; Nanase, *S. Okamoto* (1937 Apr.), *S. Yasuda* 674; Iwatani—Ootsubo, *M. Tagawa* 1750; Ashiu, A. Nitta 11933.

### Styracaceae

*Pterostyrax hispida* Siebold et Zucc.

*Oobaasagara*

Okamoto 1930: 84 (as *P. micranthum* S. et Z.), Okamoto 1941: 80, Nakane 1986: 41, Yamanaka 1991: 25.

Japan (Honshu [east to Yamagata], Shikoku, N.C. Kyushu [and Tsushima]), C. China.

Sugou—Akasaki, *S. Yasuda* 408; Makuratani, *M. Tagawa* (1933 Jul.); Mt. Mikunidake, 650m, *S.*

*Tsugaru et al.* 16391; Sasari—Hacchou, 450-600m, *S. Mimoro* 10381; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Ashiu, *S. Okamoto* (1938 Jul.), *T. Horikawa* 86.

*Styrax japonica* Siebold et Zucc.

*Egonoki*

Okamoto 1930: 85, Okamoto 1941: 81, Watanabe 1973: VIII, Nakane 1986: 41, Yamanaka 1991: 26.

Japan (Hokkaido [Hidaka], Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan, N. Philippines.

Sugou—Akasaki, *S. Yasuda* 435; Hitsukuradani, *S. Yasuda* 446; Bunanokitouge—Nakayama, *S. Yasuda* 932; Nakayama, *S. Yasuda et al.* 1047.

*Styrax obassia* Siebold et Zucc.

*Hakuunboku*

Okamoto 1930: 85, Okamoto 1941: 81, Watanabe 1973: VIII, Nakane 1986: 41, Yamanaka 1991: 26.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1293, *S. Yasuda et al.* 963; Naisugidani, *M. Tagawa* (1933 Jul.); Bunanokitouge—Nakayama, *S. Yasuda* 932; Choujidani—Mt. Mikunidake, *A. Nitta* 12545; Choujidani—Jizoutouge, 700-750m, *S. Fujii et al.* 2463; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Chiimura, *G. Koidzumi* (1922 May); Ashiu, *A. Nitta* 11950, *N. Kinashi* (s.n.)

### Symplocaceae

*Symplocos coreana* (Lév.) Ohwi

*Tannasawafutagi*

Okamoto 1941: 80 (as *Palura coreana* Nakai), Watanabe 1973: VIII, Nakane 1986: 41, Yamanaka 1991: 25.

Japan (Honshu [east to Kantoh Distr.], Shikoku, Kyushu), Korea (Jeju Isl.)

Hitsukuradani, *S. Yasuda et al.* 425; Nakanotsubo, *S. Yasuda et al.* 598; Chiimura, *K. Ando* (1921 Aug.); Ashiu, ca. 400m, *H. Nagamasu* 2063, 2064, 2070.

*Symplocos sawafutagi* Nagamasu

*Sawafutagi*

(= *S. chinensis* (Lour.) Druce var. *leucocarpa* (Nakai) Ohwi)

Okamoto 1930: 84 (as *Palura paniculata* Nakai var. *pilosa* Nakai), Okamoto 1941: 80 (as *Palura pilosa* Nakai), Watanabe 1973: VIII, Nakane 1986: 41, Yamanaka 1991: 25.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1274; Kaduradani, *M. Tagawa* (1933 Jul.); Sugou—Nanase, *S. Yasuda* 334; Bunanokitouge—Nakayama, *S. Yasuda* 934; Kamitani, *M. Ito* 3591, *S. Yasuda* 375; Choujidani, *K. Iwatsuki* 5512; Makuratani, 650m, *K. Matsui* 44 45; Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16336, 690m, 16360, 670m, 16671; Sasari, ca. 600m, *S. Mitsuta et al.* (1978 Jul.); Ashiu, *G. Nakai* 3322, *A. Nitta* 11946, ca. 600m, *H. Takahashi* 923, ca. 400m, *H. Nagamasu* 2062, 2067, 2068.

### Theaceae

*Camellia japonica* L.

*Yabutsubaki, Yamatsubaki*

Okamoto 1930: 72 (as *C. japonica* L. var. *hortensis* Makino, "Tsubaki"), Okamoto 1941: 69 (as *C. japonica* L. var. *spontanea* Makino in Ternstroemiaceae), Watanabe 1973: VII, Nakane 1986: 34, Yamanaka 1991: 20.

Japan (Honshu [north to Aomori], Shikoku, Kyushu, Ryukyus), Taiwan.

Haino, *S. Okamoto* (1937 Apr.), *N. Yamanaka* 3302.

*Camellia sinensis* (L.) O. Kuntze

*Cha, Chanoki*

Watanabe 1973: VII, Nakane 1986: 34.

Escaped.

Previously planted around Haino.

Haino, *S. Yasuda* 899.

*Eurya japonica* Thunb.

*Hisakaki*

Okamoto 1930: 72, Okamoto 1941: 69 (as *E. japonica* Thunb. var. *montana* Blume in Ternstroemiaceae), Watanabe 1973: VII, Nakane 1986: 34, Yamanaka 1991: 20.

Japan (Honshu [north to Iwate and Akita], Shikoku, Kyushu, Ryukyu [south to Iriomote Isl.], Bonin Isl.), S. Korea, China, India, Malaysia.

Akasaki, ca. 400m, *H. Takahashi et al.* 25; Sugou—Koyomogi, *S. Yasuda* 64; Ashiu, *G. Koidzumi* (1921 Aug.)

*Stewartia pseudocamellia* Maxim.

*Natsutsubaki*

Okamoto 1930: 72, Okamoto 1941: 70 (in Ternstroemiaceae), Watanabe 1973: VII, Nakane 1986: 34, Yamanaka 1991: 20.

Japan (Honshu [east to Fukushima and Niigata], Shikoku, Kyushu [south to Mt. Takakuma]), S. Korea.

Hitsukuradani, *S. Okamoto* (1937 Jul.); Ashiu, *S. Okamoto* (1939 Jul.)

**Thymelaeaceae**

*Daphne miyabeana* Makino

*Karasushikimi*

Watanabe 1973: VII, Nakane 1986: 23, Yamanaka 1991: 21.

Japan (the Japan-Sea side west to Iki Isl. and Mt. Daisen.)

Sugou (transplanted), *S. Yasuda et al.* 890; Onokodani, *R. Miura* (1990 May); Hitsukuradani, *N. Yamanaka* 3235.

**Tiliaceae**

*Corchoropsis tomentosa* (Thunb.) Makino

*Karasunogoma*

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 32.

Japan (Honshu [east to Kanto Distr.], Shikoku, Kyushu), Korea, China.

No specimen.

*Tilia japonica* (Miq.) Simonkai

*Shinanoki*

Okamoto 1930: 71, Okamoto 1941: 68, Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu [Kumamoto and Miyazaki .])

Sugou, *M. Tagawa* 2058; Ootani—Tsubodani, *N. Yamanaka* 3148; Mt. Mikunidake, *G. Koidzumi* (1921 Aug.); Ashiu—Shuzan, *S. Tanaka* (1932 Jul.); Ashiu, *S. Okamoto* (1932 Jul.)

**Trochodendraceae**

*Trochodendron aralioides* Siebold et Zucc.

*Yamaguruma, Torimochinoki*

Okamoto 1930: 39, Okamoto 1941: 38, Watanabe 1973: V, Nakane 1986: 14, Yamanaka 1991: 6.

Japan (Honshu [north to S. Yamagata], Shikoku, Kyushu, Ryukyus), S. Korea, Taiwan.

Akasaki, *S. Okamoto* (1934 May); Koyomogi, *N. Yamanaka* 3299; Kaduradani, *S. Yasuda* 248; Naisugidani, *M. Tagawa* 2087; Shimodani, *N. Kurosaki* 2088; Mt. Mikunidake, *G. Koidzumi* (1921 Aug.), 500-900m, *N. Kurosaki* 11923; Sasari—Haino, *M. Umebayashi* 993; Ashiu, *G. Nakai*, 5611, *A. Nitta* (1965 Jul.), *Y. Tatehashi et al.* 480.

**Ulmaceae**

*Celtis jessoensis* Koidz.

*Ezoenoki*

Watanabe 1973: XI, Yamanaka 1991: 5.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N.E. China.

Naisugitani, *N. Yamanaka* 3337.

*Ulmus laciniata* (Trautv.) Mayr

*Ohyou, Atsuni*

Okamoto 1941: 37, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 5.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, N. China, E. Siberia, Kamchatka.

Kadura, *M. Tagawa* 2056.

*Zelkova serrata* (Thunb.) Makino

*Keyaki*

Okamoto 1930: 38, Okamoto 1941: 37, Watanabe 1973: IV, Nakane 1986: 10, Yamanaka 1991: 5.

Japan (Honshu, Shikoku, Kyushu), Korea, China, Taiwan.

Sugou, *S. Okamoto* (1934 May), (1934 Jul.), (1959 Jul.), *N. Yamanaka* 3291; Ashiu, *A. Nitta* 12610.

**Umbelliferae**

*Angelica dahurica* (Fisch.) Benth. et Hook.

*Yoroigusa*

Watanabe 1973: VIII (as "Ohshishiudo, Yoroigusa").

Japan (Honshu, Kyushu), Korea, N.E. China, Amur, Ussurie, E. Siberia.  
No specimen.

*Angelica polymorpha* Maxim.

*Shiranesenkyuu, Suzukazeri*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Honshu, Shikoku, Kyushu), Korea, N.E. China.

Sugou—Nanase, *S. Yasuda* 757; Jizoutouge—Nakayama—Sugiotouge, 670m, *S. Tsugaru et al.* 17153; Ashiu, *S. Okamoto* (1940 Oct.), (1931 Aug.)

*Angelica pubescens* Maxim.

form. *pubescens*

*Shishiudo*

Okamoto 1941: 99 (as *A. myriostachys* Koidz., "Takaokyoukatsu"), Watanabe 1973: VIII, Nakane 1986: 37 (as "Takaokyoukatsu" and "Shishiudo").

Japan (Honshu, Shikoku, Kyushu.)

Ootani, *S. Okamoto* (1936 Oct.); Nakayama, *S. Okamoto* (1936 Oct.); Kamitani, *M. Tagawa* (1933 Jul.); Ashiu, *G. Koidzumi* (1921 Aug.), *S. Okamoto* (1936 Oct.), (1940 Oct.)

form. *muratae* Ohwi

*Kenashimiyamashishiudo*

New.

Japan (Honshu.)

Kitagawa (1982) does not recognize this form, but we follow Kitamura et al. (1961).

Kamitani, *S. Okamoto* (1936 Sept.); Makuratani, *S. Yasuda et al.* 771.

*Anthriscus aemula* Schischkin

form. *aemula*

*Shaku*

Okamoto 1941: 99 (as *A. nemorosa* Spreng), Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in N.C. Eurasia.

Hitsukuradani, *S. Yasuda* 97, 98; Choujidani, *M. Hotta* 15706; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16227, 660m, 16328; Sasari, *K. Iwatsuki* 675; Chiimura, *G. Koidzumi* (1922 May).

form. *hirtifructus* Kitag.

*Onishaku*

Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Hokkaido, Honshu, Shikoku), Sakhalin, E. Asia.

Naisugidani, *S. Okamoto* (1952 Jul.); Ashiu, *M. Hiroe* 9357, *H. Muroi* (1951 Jun.), *M. Hiroe* 12160.

*Chamaele decumbens* (Thunb.) Makino

*Sentousou*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.)

Haino, *S. Yasuda* 1082.

*Cryptotaenia japonica* Hassk.

*Mitsuba*

Okamoto 1941: 99 (as "Mitsubazeri"), Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, Sakhalin.

Sugou—Kaduradani, *S. Yasuda* 501; Sukendani, *S. Yasuda et al.* 581; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16779.

*Heracleum nipponicum* Kitag.

*Hanaudo*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Honshu [east to Kantoh Distr.], Shikoku, Kyushu.)

No specimen.

*Hydrocotyle japonica* Makino

*Miyamachidome*

Okamoto 1941: 99 (in Apiceae), Nakane 1986: 38.

Japan (Honshu, Shikoku, Kyushu), Korea (Jeju Isl.)

Mt. Mikunidake, 760m, *S. Tsugaru et al.* 17150.

*Hydrocotyle maritima* Honda

*Nochidome*

Okamoto 1941: 99 (as *H. Wilfordi* Maxim.), Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Honshu, Shikoku, Kyushu, Ryukyus, Bonin Isl.), Korea, China.

No specimen.

*Hydrocotyle ramiflora* (Thunb.) Makino

*Oochidome*

New.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea.

Sugou, *S. Yasuda* 1081; Hitsukuradani, *S. Yasuda* 1018; Nakayama, *S. Okamoto* (1940 Sept.); Choujidan, *S. Yasuda et al.* 487.

*Hydrocotyle sibthorpioides* Lam.

*Chidomegusa*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Honshu, Shikoku, Kyushu, Ryukyus, Bonin Isl.), S. Korea, China, Taiwan, from warm to tropical regions of Asia, Australia, Africa.

Sugou, *S. Yasuda* 821.

*Hydrocotyle yabei* Makino

*Himechidome*

Watanabe 1973: VIII.

Japan (Hokkaido [Oshima Pen.], Honshu, Shikoku, Kyushu.)

No specimen.

*Oenanthe javanica* DC.

*Seri*

Okamoto 1941: 99, Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, Taiwan, Ussurie, Sakhalin, E. Asia, Malaysia, India, Australia.

Naisugidani, *S. Miyake et al.* 450 (Herb. Ashiu).

*Osmorhiza aristata* (Thunb.) Rydb.

*Yabuninjin*

Okamoto 1941: 99 (as "Yabuninnjin, Nagajirami"), Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Amur, Ussurie, Siberia, Caucasus, India.

Kamitani, *S. Yasuda et al.* 134, 1001; Mt. Mikunidake, 650m, *S. Tsugaru et al.* 16228; Sasari—Haino, *S. Yasuda et al.* 982.

*Sanicula chinensis* Bunge

*Umanomitsuba*

Okamoto 1941: 100 (as "Onimitsuba"), Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, S. Sakhalin, Ussurie, Siberia.

Hitsukuradani, *S. Yasuda* 455; Mt. Mikunidake, 660m, *S. Tsugaru et al.* 16649, 650m, 16778; Ashiu, *T. Muroi* (1951 Jun.)

*Spuriopimpinella nikoensis* (Yabe ex Hisauti) Kitag.

form. *nikoensis*

*Hikagemitsuba*

Okamoto 1941: 99 (as *Pimpinella nikoensis* Yabe), Watanabe 1973: VIII, Nakane 1986: 37.

Japan (Honshu [east to Kantoh Distr.], Shikoku, Kyushu.)

Sugou—Nanase, *S. Yasuda* 663; Nakanotsubo, *S. Yasuda et al.* 607; Naisugidani, *S. Okamoto* (1936 Sept.); Shimodani, *M. Tagawa* 2070, *Y. Araki* 436, *S. Okamoto* (1940 Sept.); Iwatani, *M. Tagawa* (1933 Jul.); Ikenotani-Nakayama, ca. 600m, *M. Hutoh* 23992; Kamitani, *N. Yamanaka* 3249; Makuratani *S. Yasuda et al.* 687; Jizoutouge—Nakayama—Sugiotouge, 640m, *S. Tsugaru et al.* 16774, 650m, 16780; 660m, 17151; Ashiu, *G. Koidzumi* (1921 Aug.)

form. *dissecta* (Nakai) Ohwi

*Hagoromohikagemitsuba*

Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Honshu, Shikoku.)

Iwatani, *Y. Araki* 564, *M. Tagawa* (1933 Jul.)

*Torilis japonica* (Houtt.) DC.

*Yabujirami*

Okamoto 1941: 100, Watanabe 1973: VIII, Nakane 1986: 38.

Japan (Hokkaido, Honshu, Shikoku, Kyushu.) Widespread in Eurasia. Native to S. Asia and N. America.

No specimen.

## Urticaceae

*Boehmeria nipononivea* Koidz.

form. *nipononivea*

*Karamushi*

Okamoto 1941: 92 (as *B. frutescens* Thunb.), Watanabe 1973: IV, Nakane 1986: 11.

Japan (Honshu, Shikoku, Kyushu, Ryukyus.) Spread from E. to S. Asia.

Hitsukuradani, *S. Yasuda* 723.

- form. *concolor* (Makino) Kitam. *Aokaramushi*  
 Okamoto 1941: 92 (as *B. frutescens* Thunb. var. *concolor* Nakai), Watanabe 1973: IV, Nakane 1986: 11.  
 Keyakizaka, S. Okamoto (1936 Oct.)
- Boehmeria sieboldiana* Blume *Nagabayabumao*  
 New.  
 Japan (Honshu [north to Yamagata and Miyagi], Shikoku, Kyushu, Ryukyus), S. Korea.  
 Sukendani, S. Yasuda 792; Choujidani, S. Yasuda 729; Jizoutouge—Nakayama—Sugiotouge, 650m, S. Tsugaru et al. 16790, 17142; Ashiu, S. Okamoto (1940 Jul.)
- Boehmeria tricuspidis* (Hance) Makino *Akaso*  
 Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 12.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.  
 Hitsukuradani, S. Yasuda et al. 651; Nakanotsubo, S. Yasuda et al. 599; Jizoutouge—Nakayama—Sugiotouge, 640m, S. Tsugaru et al. 16789; Mt. Mikunidake, 670m, S. Tsugaru et al. 16653.
- Elatostema laetevirens* Makino *Yamatokihokori*  
 Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 11.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu)  
 Sugou—Akasaki, S. Yasuda 630; Naisugidani, Y. Araki 495, S. Okamoto (1940 Sept.); Iwatani—Nakayama, M. Tagawa (1933 Jul.); Nodabata, Y. Araki 544; Choujidani, K. Iwatsuki 5504; Makuratani, S. Yasuda et al. 519; Mt. Mikunidake, G. Kodzumi (s.n.), 660m, S. Tsugaru 16655; Michidani, Y. Araki 386.
- Elatostema umbellatum* Blume var. *majus* Maxim. *Uwabamisou*  
 Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 11.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), China.  
 Sugou—Kaduradani, S. Yasuda 500; Kaduradani, M. Tagawa (1933 Jul.); Choujidani, ca. 600m, H. Takagashi 916; Makuratani, S. Yasuda 295; Mt. Mikunidake, 670m, S. Tsugaru et al. 16330.
- Laportea bulbifera* (Siebold et Zucc.) Wedd. *Mukagoirakusa*  
 Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 11.  
 Japan (Hokkaido, Honshu, Kyushu), Kurils, Korea, China, Ussurie.  
 Sugou—Kaduradani, S. Yasuda 708; Nakanotsubo, S. Yasuda et al. 600; Sukendani, S. Yasuda et al. 572.
- Laportea macrostachya* (Maxim.) Ohwi *Miyamairakusa*  
 Okamoto 1941: 93, Watanabe 1973: IV, Nakane 1986: 12.  
 Japan (Hokkaido, Honshu, Kyushu), Korea, China.  
 Hitsukura, S. Yasuda 539.
- Pilea japonica* (Maxim.) Hand.-Mazz. *Yamamizu*  
 Okamoto 1941: 92 (as *Achudenja japonica* Maxim.), Watanabe 1973: IV, Nakane 1986: 11.  
 Japan (Honshu [north to Miyagi], Shikoku, Kyushu), Korea, China, Ussurie.  
 No specimen.
- Pilea mongolica* Wedd. *Aomizu*  
 Okamoto 1941: 93 (as *P. viridissima* Makino), Watanabe 1973: IV, Nakane 1986: 11.  
 Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, E. Siberia, Amur, Ussurie, Mongolia.  
 Jizoutouge—Nakayama—Sugiotouge, 680m, S. Tsugaru et al. 17143.
- Pilea pseudopetiolaris* Hatus. *Komiyamamisu*  
 New.  
 Japan (Honshu [east to Kinki Distr.], Shikoku, Kyushu).  
 Sugou—Haino, S. Okamoto (1931 Aug.); Naisugitani, S. Okamoto (1936 Sept.); Ashiu, G. Koidzumi (1921 Aug.)
- Valerianaceae**
- Patrinia scabiosaefolia* Fisch. *Ominaeshi*  
 Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Kurils, Korea, China, Taiwan, E. Siberia, Mongolia, Ussurie.

No specimen.

*Patrinia villosa* (Thunb.) Juss.

*Otokoeshi*

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 49.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China.

Sugou—Akasaki, S. Yasuda 636; Nanase, S. Okamoto (1936 Oct.); Nakayama, S. Okamoto (1940 Sept.); Choujidani, S. Yasuda 736.

*Valeriana flaccidissima* Maxim.

*Tsurukanokosou*

Okamoto 1941: 104, Watanabe 1973: X, Nakane 1986: 49.

Japan (Honshu, Shikoku, Kyushu.)

Sugou—Nanase, S. Yasuda 361; Naisugidani, S. Yasuda et al. (1993 May); Ashiu, S. Okamoto (1930 May).

### Verbenaceae

*Callicarpa japonica* Thunb.

*Murasakishikibu*

Okamoto 1930: 86, Okamoto 1941: 82, Watanabe 1973: IX, Nakane 1986: 44, Yamanaka 1991: 26.

Japan (S. Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan.

Sugou—Haino, S. Yasuda 911; Akasaki, ca. 400m, H. Takahashi et al. 30; Hitsukuradani, S. Yasuda et al. 562; Keyakizaka, S. Okamoto (1936 Oct.); Jizoutouge—Nakayama—Sugiotouge, 720m, S. Tsugaru et al. 17114; Mt. Mikunidake, 650m, S. Tsugaru 16667.

*Callicarpa mollis* Siebold et Zucc.

*Yabumurasaki*

Okamoto 1930: 87, Okamoto 1941: 83, Watanabe 1973: IX, Nakane 1986: 44, Yamanaka 1991: 26.

Japan (Honshu [north to Miyagi], Shikoku, Kyushu), Korea.

Sugou—Haino, S. Yasuda 912.

*Caryopteris divaricata* (Siebold et Zucc.) Maxim.

*Kariganesou*

Okamoto 1941: 101, Watanabe 1973: IX, Nakane 1986: 44.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China.

Nanase—Iwatani, R. Miura (1990 Sep.), S. Yasuda 798.

*Clerodendrum trichotomum* Thunb.

*Kusagi*

Okamoto 1930: 87 (as *Clerodendron trichotomum* Thunb.), Okamoto 1941: 83 (as *Clerodendron trichotomum* Thunb.), Watanabe 1973: IX, Nakane 1986: 44, Yamanaka 1991: 27.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), Korea, China, Taiwan.

Sugou—Akasaki, S. Yasuda 612; Akasaki, ca. 400m, H. Takahashi et al. 22; Iwatani—Nanase, Y. Araki 572; Hitsukuradani, S. Yasuda et al. 561; Choujidani, K. Iwatsuki 5513; Jizoutouge—Nakayama—Sugiotouge, 640m, S. Tsugaru et al. 16771.

### Violaceae

*Viola brevistipulata* (Franch. et Sav.) W. Becker

*Oobakisumire*

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 35.

Japan (Hokkaido, Honshu [the Japan-Sea side south to N. Kinki Distr.])

Ootani—Iwatani, S. Yasuda 201; Ashiu, G. Koidzumi (1922 May), S. Okamoto (1936 May).

*Viola eizanensis* Makino

*Eizansumire*

Okamoto 1941: 98 (as “Ezsumire”), Watanabe 1973: VII, Nakane 1986: 35 (as “Ezsumire”).

Japan (Honshu, Shikoku, Kyushu.)

Onokodani, S. Okamoto (1935 Jul.)

*Viola grypoceras* A. Gray

var. *grypoceras*

*Tachitsubosumire, Yabusumire*

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 35.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyus), S. Korea, C. China, Taiwan.

Sugou—Koyomogi, S. Yasuda 51, 71; Choujidani—Ootani, ca. 600m, K. Ueda et al. 501;

Choujidani—Mikunitouge, ca. 600-800m, *K. Ueda et al.* 545, *S. Yasuda et al.* 830, 1048; Ashiu, *Z. Tashiro* (1933 May).

var. *exilis* (Miq.) Nakai  
New.

*Kotachitsubosumire*

Japan (Honshu [east to Kinki Distr.], Shikoku, Kyushu), S. Korea.  
Mt. Mikunidake, 500-900m, *N. Kurosaki* 11927, *Y. Inamasu* 12.

*Viola hondoensis* W. Becker et H. Boiss.

*Aoisumire*

Okamoto 1941: 98 (as *V. nipponica* Maxim.), Watanabe 1973: VII, Nakane 1986: 35.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea (Ullung Isl.)

Sugou—Haino, *S. Yasuda et al.* 980; Sugou—Koyomogi, *S. Yasuda et al.* 814.

*Viola keiskei* Miq.

var. *keiskei*

*Kemarubasumire*

Okamoto 1941: 98 (as *V. Okuboi* Makino var. *typica* Makino), Watanabe 1973: VII, Nakane 1986: 35.

Japan (Honshu, Shikoku, Kyushu), Korea.

Ashiu, *S. Okamoto* (1936 May).

var. *glabra* (Makino) W. Becker

*Marubasumire*

Okamoto 1941: 98 (as *V. Keiskei* Miq., “Kinkasumire”), Watanabe 1973: VII.

Japan (Honshu, Shikoku, Kyushu), Korea.

“Kinkasumire” is another name of “Marubasumire”, according to Hara (1954). The latin name used for this species by Okamoto (1941), *Viola Keiskei* Miq., is the one for “Kemarubasumire” by Momiyama (1989), which latin name by Okamoto was *Viola Okuboi* Makino var. *typica* Makino. We, therefore, use the name, *V. keiskei* Miq. var. *glabra* (Makino) W. Becker, for “Marubasumire” following Momiyama (1989).

No specimen.

*Viola kusanoana* Makino

*Ootachitsubosumire*

Okamoto 1941: 98 (as *V. Kusanoana* Makino var. *glabra* Nakai), Watanabe 1973: VII, Nakane 1986: 35.

Japan (Hokkaido, Honshu [the Japan-Sea side], N. Kyushu), Korea (Ullung Isl.), Sakhalin.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1254, *S. Yasuda* 50, 121; Sasari, 500m, *Y. Inamasu* 34; Chiimura, *G. Koidzumi* (1922 May); Ashiu, *S. Okamoto* (1936 May), *G. Murata* 7077, *S. Okamoto* (1936 May).

*Viola mandshurica* W. Becker

*Sumire*

Okamoto 1941: 98 (as *V. mandshurica* W. Beck. var. *ciliata* Nakai), Watanabe 1973: VII, Nakane 1986: 36.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, China, E. Siberia.

Choujidani, *S. Yasuda* 147, 241; Sasari, *Y. Inamasu* 38; Ashiu, *S. Okamoto* (1936 May).

*Viola ovatooblonga* (Miq.) Makino

*Nagabanotachitsubosumire*

New.

Japan (Honshu [east to Chubu Distr.], Shikoku, Kyushu), S. Korea.

Chiimura, *G. Koidzumi* (1921 Aug.)

*Viola patrinii* DC.

*Shirosumire, Shirobanasumire*

Okamoto 1941: 98 (as *V. Patrinii* DC. var. *typica* Regel, “Shirobanasumire”), Watanabe 1973: VII (as “Shirobanasumire”), Nakane 1986: 35 (as “Shirobanasumire”).

Japan (Hokkaido, Honshu, Shikoku, Kyushu), S. Kurils, Korea, N.E. China, Sakhalin, Siberia.

No specimen.

*Viola vaginata* Maxim.

*Sumiresaishin*

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 35.

Japan (S.W. Hokkaido, Honshu [west to Kinki Distr., mainly the Japan-Sea side.])

Sugou—Koyomogi, *S. Yasuda* 59, 72; Kamitani, *M. Ito* 3595; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 511; Choujidani, *K. Iwatsuki* 704; Ashiu, *Z. Tashiro* (1933 May), *S. Okamoto* (1936 May).



*Viola verecunda* A. Gray*Tsubosumire, Nyoisumire*

Okamoto 1941: 98 (as *V. verecunda* A. Gray var. *typica* Makino), Watanabe 1973: VII, Nakane 1986: 35.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Sakhalin, Ussurie, Amur.

Sugou—Kaduragoya, ca. 400m, *M. Ito et al.* 1258, *S. Yasuda et al.* 813, 1080; Hitsukuradani, *S. Yasuda* 163; Choujidani—Ootani, ca. 600m, *K. Ueda et al.* 514; Choujidani, *S. Yasuda* 128.

*Viola violacea* Makino*Shihaisumire*

Okamoto 1941: 98, Watanabe 1973: VII, Nakane 1986: 35.

Japan (Honshu [east to S. Nagano], Shikoku, Kyushu), S. Korea.

Choujidani—Mikunitouge, ca. 600-800m, *K. Ueda et al.* 542, *S. Yasuda et al.* 130, 831.

**Vitaceae***Ampelopsis brevipedunculata* (Maxim.) Trautv. var. *heterophylla* (Thunb.) Hara *Nobudou*

Okamoto 1930: 70 (as *A. heterophylla* S. et Z.), Okamoto 1941: 67 (as *A. brevipedunculata* Trautv. var. *Maximowiczii* Rehd.), Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyu.)

Sugou-Kaduradani, *S. Yasuda* 506, 628; Hitsukuradani, *S. Yasuda* 653; Makuratani, *S. Yasuda* 1058.

*Parthenocissus tricuspidata* (Siebold et Zucc.) Planch.*Tsuta, Natsuduta*

Okamoto 1930: 70, Okamoto 1941: 68 (as *P. Thunbergii* Nakai), Watanabe 1973: VII, Nakane 1986: 33, Yamanaka 1991: 19.

Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea, China, Ussurie.

Sugou, *S. Yasuda* 928.

*Vitis coignetiae* Pulliat ex Planch.*Yamabudou*

Okamoto 1930: 70, Okamoto 1941: 68 (as *V. Kaempferi* K. Koch), Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 19.

Japan (Hokkaido, Honshu, Shikoku), S. Kurils, Korea (Ullung Isl.), Amur, Ussurie, Sakhalin.

Shimodani, *M. Tagawa* 2089, *T. Takeuchi* (1943 Aug.), *N. Yamanaka* 3168.

*Vitis flexuosa* Thunb.var. *flexuosa**Sankakuduru, Gyoujanomizu*

Okamoto 1930: 70, Okamoto 1941: 68, Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 19.

Japan (Honshu, Shikoku, Kyushu, Amami Ohshima Isl.), Korea, China.

Kaduradani, *M. Tagawa* 2068; Kasa, *S. Okamoto* (1936 Jul.); Keyakizaka, *S. Okamoto* (1935 Jul.); Mt. Mikunidake, 670m, *S. Tsugaru et al.* 16389; Ashiu, *S. Okamoto* (1949 Jul.)

var. *rufotomentosa* Makino*Kesankakuduru*

New.

Japan (Honshu [Fukui and Kinki Distr.], Shikoku, Kyushu.)

Sasari—Hacchourindou, 450m, *S. Mimoro et al.* (1975 Jul.)

*Vitis saccharifera* Makino*Amaduru*

Watanabe 1973: VII, Nakane 1986: 32, Yamanaka 1991: 19.

Japan (Honshu [east to Tohoku Distr.], Shikoku, Kyushu.

Ashiu, *S. Okamoto* (1952 Jul.)

*Vitis thunbergii* Siebold et Zucc.*Ebiduru*

Okamoto 1941: 68, Watanabe 1973: VII (as “*Kikubaebiduru*”), Nakane 1986: 33 (as “*Kikubaebiduru*”), Yamanaka 1991: 19 (as *V. ficifolia* Bunge).

Japan (Honshu, Shikoku, Kyushu, Ryukyu), Korea, China, Taiwan.

No specimen.

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